

UNITED STATES DISTRICT COURT  
FOR THE SOUTHERN DISTRICT OF NEW YORK

JEFFREY STERK, KIMBERLY STERK, and  
MICHAEL MELISSINOS, on behalf of  
themselves and all others similarly situated,

Plaintiff,

vs.

BANK OF AMERICA CORPORATION,  
BANK OF AMERICA, N.A., BARCLAYS  
BANK PLC, BARCLAYS CAPITAL, INC.,  
BNP PARIBAS GROUP, BNP PARIBAS  
NORTH AMERICA, INC., BNP PARIBAS  
PRIME BROKERAGE, INC., BNP PARIBAS  
SECURITIES, INC., CITIGROUP, INC.,  
CITIBANK, N.A., CITIGROUP GLOBAL  
MARKETS, INC., CREDIT SUISSE GROUP  
AP, CREDIT SUISSE AG, CREDIT SUISSE  
INTERNATIONAL, CREDIT SUISSE  
SECURITIES (USA) LLC, DEUTSCHE  
BANK AG, DEUTSCHE BANK  
SECURITIES INC., THE GOLDMAN  
SACHS GROUP, INC., GOLDMAN, SACHS  
& CO., HSBC HOLDINGS PLC, HSBC  
BANK PLC, HSBC NORTH AMERICA  
HOLDINGS INC., HSBC BANK USA, N.A.,  
HSBC SECURITIES (USA) INC., J.P.  
MORGAN CHASE & CO., J.P. MORGAN  
CHASE BANK, N.A., MORGAN STANLEY,  
MORGAN STANLEY & CO., LLC, THE  
ROYAL BANK OF SCOTLAND GROUP  
PLC, ROYAL BANK OF SCOTLAND PLC,  
RBS SECURITIES, INC., UBS AG, and UBS  
SECURITIES LLC,

Defendants.

Case No. 15-CV-2705

**CLASS ACTION COMPLAINT**

**JURY TRIAL DEMANDED**

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Plaintiffs Jeffrey Sterk, Kimberly Sterk, and Michael Melissinos (“Plaintiffs”), individually and on behalf of all those similarly situated, as defined below, bring this class action for treble damages and allege as follows:

**NATURE OF THE ACTION**

1. This case concerns Defendants’ successful attempts to manipulate prices for foreign exchange (“FX”) futures and options on FX futures. FX futures are agreements to buy or sell a foreign currency at a set price and date in the future, and are traded on centralized exchanges, such as the Chicago Mercantile Exchange (“CME”) and ICE Futures U.S. Exchanges (“ICE”). Time after time, day after day, year after year, Defendants colluded to “bang the close,” “take out the filth,” “overbuy,” and engage in a variety of other manipulative tactics—essentially, artificially pushing through favorable transactions, while withholding unfavorable ones—during small periods of time when important benchmarks were being measured. The intended result of this concerted action was that FX prices, including for futures and options and futures, were distorted in Defendants’ favor. Caught in the wake of Defendants’ money-grabbing scheme were, among others, all those that traded futures during the periods when the markets were being so distorted.

2. Defendants, who together dominate the FX market, have largely admitted to colluding to manipulate FX prices. All the hallmarks of the textbook example of manipulation—price fixing, direct communications between competitors, sharing of commercially sensitive information (like client orders), and a resulting concerted course of activity designed to result in price movements favorable to conspiracy members—have been revealed by government and other investigations. Indeed, through fines and now proposed class-action settlements, many Defendants are already paying for their admitted sins.

3. However, the scope and impact of Defendants' schemes has now been confirmed to be even wider than what many may have previously understood, for at least two reasons.

4. *First*, this is because the focus, until now, has been on prices for "spot" transactions (where the currencies are exchanged almost immediately). This is likely because initial reports about wrongdoing centered around 4 p.m. London time, when benchmarks used for spot transactions (the "WM/Reuters Closing Rates") were set. But this focus vastly understates the scope of Defendants' scheme. This is because prices for FX *futures*—contracts to buy and sell currency at a pre-set time in the future, usually at the end of the quarter—move in tandem with FX spot prices. Which is to merely state the obvious: that the value of a contract that has a locked-in rate for a future exchange fluctuates with what current rates are. Economic literature, industry guidebooks, and analyses performed by Plaintiffs' expert consultants here all confirm this connection.

5. Thus, currently a large class of victims of Defendants' admitted-to manipulations in the FX marketplace have yet to be compensated, either by fines or even the previously announced settlements with *spot* participants: those who transacted in FX *futures and options on futures* around the WM/Reuters Closing Rate fixing window. Prices for FX futures around that time moved at the whim of Defendants' admitted-to "cartel" no less than spot prices did. Those that transacted in FX futures and options on futures are thus no less the victims of Defendants' schemes, than those that executed spot transactions.

6. *Second*, and just as importantly, the evidence now shows that Defendants' admitted-to "cartel" manipulated prices at other times as well. Defendants already admitted to manipulating multiple benchmark rates, at multiple times. They have already been found to have had insufficient internal controls with respect to their FX systems. They have already admitted

to allowing traders to communicate with other traders at other banks *throughout the day*. And they have already shown that, regardless of any purported differences between their respective portfolios, they were willing and able to come together to share in the benefits of power that came from being at the head of a price-setting cartel. It would thus be decidedly unexpected to learn that the wrongdoing was neatly confined to the time period around the WM/Reuters Closing Rate fixing.

7. That the admitted-to “cartel” in fact extended beyond the time period around the WM/Reuters Closing Rate fixing window has been confirmed by numerous economic analyses, detailed at length below and in the accompanying appendices. The same tell-tale signs of manipulation that lead to the initial scandal about trading patterns surrounding 4 p.m. London time, have now been confirmed to be present at other equally periods during the FX trading day.

8. For instance, every trading day, FX futures are “marked to market,” and traders’ accounts credited or debited accordingly, based on the average trading activity on the futures transactions for each currency pair during a thirty-second window leading up to 2 p.m. Central time (the “CME Daily Settlement Rates”).<sup>1</sup> Further, this rate is used to make the key determination of whether options on FX futures on each currency pair are “in the money” or “out of the money.” Defendants, who maintained huge books of FX futures and options on futures, thus would have just as keen of an interest in this FX benchmark, as they admitted to having in the WM/Reuters benchmark—if not more so.

9. Given Defendants’ admitted-to *modus operandi* of collectively and collusively flooding the FX market with transactions during key measurement windows, it is unfortunately not surprising in retrospect to see huge spikes in futures activity centering around 2 p.m. Central

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<sup>1</sup> The ICE futures exchange also uses prices around 2 p.m. Central time to perform similar calculations.

time, just as was seen around 4 p.m. London time. Indeed, the market activity around the CME Daily Settlement Rate fixing window is often *higher* than that around the WM/Reuters Closing Rate fixing window, where many Defendants have admitted to “banging the close.” Plaintiffs here provide numerous analyses, covering multiple currency pairs and many years, confirming this to be the case.

10. This is just one example of how the futures trading data reveals Defendants’ cartel impacted prices outside the WM/Reuters Closing Rate fixing window. Included below and in the appendices are numerous other datapoints, again across multiple years and currency pairs, showing for example how prices moved abnormally in one consistent direction, year after year, during the CME Daily Settlement Rate fixing window. Economists have found the likelihood that this pattern would emerge in a normally functioning market is essentially zero.

11. Other data included below also establishes statistically significant spikes not just around the WM/Reuters Closing Rate fixing window, and not just around the CME Daily Settlement Rate fixing window, but at other key trading times, such as on the quarterly periods when FX futures were typically rolled over, or had their final settlement prices calculated.

12. *In sum*, many Defendants have already admitted to manipulating, in coordinated fashion, prices in the FX market. The extensive economic data analyses set forth herein confirm not only that the admitted-to manipulation directly and intentionally impacted prices for FX futures, but that Defendants’ manipulations extended to other similarly key periods in the futures trading day as well. Plaintiffs, who traded FX futures, including on days already identified as being those on which prices show particularly strong signs of having been manipulated, and including around the relevant trading time windows, were victims of Defendants’ cartel, and bring this Complaint to seek redress.



**JURISDICTION AND VENUE**

13. This Court has subject matter jurisdiction over this action pursuant Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15(a) and 26), Section 22 of the Commodity Exchange Act (7 U.S.C. § 25), and pursuant to 28 U.S.C. § 1331 and 1337(a).

14. Venue is proper in this District pursuant to 15 U.S.C. §§ 15(a) and 22 and 28 U.S.C § 1391(b), (c), and (d) because during the Class Period (as defined below), all the Defendants resided, transacted business, were found, or had agents in this District; a substantial part of the events or omissions giving rise to these claims occurred in this District; and a substantial portion of the affected interstate trade and commerce discussed herein has been carried out in this District.

15. This Court has personal jurisdiction over each Defendant, because each Defendant: transacted business throughout the United States, including in this District; entered FX transactions, including spot, forward, futures and options transactions, throughout the United States, including in this District; had substantial contacts with the United States, including in this District; and/or committed overt acts in furtherance of their illegal scheme and conspiracy in the United States. In addition, the conspiracy was directed at, and had the intended effect of, causing injury to persons residing in, located in, or doing business throughout the United States, including in this District.

16. The activities of Defendants and their co-conspirators were within the flow of, were intended to, and did have a substantial effect on the foreign and interstate commerce of the United States.

## **THE PARTIES**

### **A. Plaintiffs**

17. Plaintiff Jeffrey Sterk is an individual residing in Encinitas, California. He traded extensively in the FX market. This included entering into FX futures trades during the Class Period, including on days that have already been identified as those showing particular signs of having been subject to Defendants' FX manipulations alleged herein. This also included entering into such trades in the trading windows at issue in this Complaint, such as those around the daily WM/Reuters Closing Rate fixing window, the CME Daily Settlement Rate fixing window, and/or around the quarterly industry-standard rollover and final settlement calculation windows. Mr. Sterk was harmed by Defendants' wrongful acts alleged herein.

18. Plaintiff Kimberly Sterk is an individual residing in Encinitas, California. She traded extensively in the FX market. This included entering into FX futures trades during the Class Period, including on days that have already been identified as those showing particular signs of having been subject to Defendants' FX manipulations alleged herein. This also included entering into such trades in the trading windows at issue in this Complaint, such as those around the daily WM/Reuters Closing Rate fixing window, the CME Daily Settlement Rate fixing window, and/or around the quarterly industry-standard rollover and final settlement calculation windows. Ms. Sterk was harmed by Defendants' wrongful acts alleged herein.

19. Plaintiff Michael Melissinos is an individual residing in Matawan, New Jersey. He traded extensively in the FX market. This included entering into FX futures trades during the Class Period, including on days that have already been identified as those showing particular signs of having been subject to Defendants' FX manipulations alleged herein. This also included entering into such trades in the trading windows at issue in this Complaint, such as those around the daily WM/Reuters Closing Rate fixing window, the CME Daily Settlement Rate fixing

window, and/or around the quarterly industry-standard rollover and final settlement calculation windows. Mr. Melissinos was harmed by Defendants' wrongful acts alleged herein.

20. A sample of days on which Plaintiffs purchased or sold FX futures and/or options on futures between March 2011 and the present is contained in Appendix L. Plaintiffs were similarly active at prior times in the Class Period.

**B. Defendants**

21. Whenever in this Complaint reference is made to any act, deed, or transaction of any entity, the allegation means that the corporation engaged in the act, deed, or transaction by or through its officers, directors, agents, employees, or representatives while they were actively engaged in the management, direction, control, or transaction of the entity's business or affairs.

22. ***Bank of America Defendants.*** Defendant Bank of America Corporation ("BAC") is a corporation organized and existing under the laws of Delaware with its principal place of business in Charlotte, North Carolina. BAC has extensive operations in New York, including its investment banking division, which is located in New York, New York. Defendant Bank of America, N.A. ("BANA") is a federally chartered national banking association with its principal place of business in Charlotte, North Carolina. BANA is a wholly owned subsidiary of BAC, and has extensive operations in New York.

23. Defendant Merrill Lynch, Pierce, Fenner & Smith Inc. ("MLPFS") is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. MLPFS is the successor (by merger) to Banc of America Securities LLC, and is a wholly owned subsidiary of BAC. MLPFS is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing, which is the clearing house division of the CME. As used herein, the

term “BofA” includes Defendants BAC, BANA, MLPFS, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

24. During the Class Period, BofA was a major participant in the FX market (including by transacting in spots, forwards, futures, and options) and a major dealer for FX spot and forward transactions. For instance, the Office of the Comptroller of the Currency (“OCC”) observed that BofA “engages in foreign exchange business (including G10 and other currencies, sales and trading in spot, forwards, options, and other derivatives)” and that BofA “was an active dealer in the G10 spot foreign exchange market during the period from 2008 to 2013.”<sup>2</sup> BofA also consistently appears on *Euromoney*’s surveys of the top participants in the global FX market. And as noted above, MLPFS is a registered futures merchant and a clearing member of the CME.

25. As detailed below, government regulators have specifically targeted BofA as part of their ongoing investigations into the manipulation of the FX market. The OCC, for instance, has already concluded that BofA colluded with others banks to manipulate the FX market. BofA has since suspended or terminated at least one FX employee, and banned the use of multi-bank chat rooms by its FX personnel.

26. ***Barclays Defendants.*** Defendant Barclays Bank plc (“Barclays Bank”) is a corporation organized and existing under the laws of the United Kingdom with its principal place of business in London, England. Barclays Bank has substantial operations in the U.S., including in New York. Barclays Bank has branches and representative offices throughout the U.S., including locations and employees in New York, New York. In addition, Barclays Bank is registered as a financial holding company with the Federal Reserve Bank of New York, and

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<sup>2</sup> *In the Matter of Bank of America, N.A.*, AA-EC-14-99, Consent Order (Nov. 11, 2014).

Barclays Banks' New York branch is licensed by the New York State Department of Financial Services with a registered address in New York, New York.

27. Defendant Barclays Capital, Inc. ("BarCap") is a corporation organized and existing under the laws of Connecticut, with its principal place of business in New York, New York. BarCap is a subsidiary of Barclays Bank. BarCap engages in investment banking and investment management services. BarCap is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term "Barclays" includes Defendants Barclays Bank, BarCap, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

28. During the Class Period, Barclays was a major participant in the market for FX instruments (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, on its website Barclays touts its "experience and capability as the third largest foreign exchange bank by global market share."<sup>3</sup> That is consistent with Barclays' consistent appearance toward the top of *Euromoney's* surveys of the main participants in the global FX market. Barclays also advertises BARX FX, the electronic FX trading platform through which Barclays acts as a dealer for FX spot and forward transactions.<sup>4</sup> And as noted above, BarCap is a registered futures merchant and a clearing member of the CME.

29. As detailed below, government regulators have specifically targeted Barclays as part of their ongoing investigations into the manipulation of the FX market. Barclays has since

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<sup>3</sup> Barclays Corporate Banking Foreign Exchange (available at <http://www.barclayscorporate.com/products-and-solutions/risk-solutions/foreign-exchange.html>).

<sup>4</sup> Barclays: BarX: Foreign Exchange (available at <http://www.barx.com/client-offering/foreign-exchange.html>).

suspended or terminated at least six FX employees, and banned the use of multi-bank chat rooms by its FX personnel.

30. ***BNP Paribas Defendants.*** Defendant BNP Paribas Group (“BNP Group”) is a company organized and existing under the laws of France with its principal place of business in Paris, France. BNP Group has substantial operations in the U.S., including in New York. BNP Group has branches and representative offices throughout the U.S., including locations and employees in New York, New York. In addition, BNP Group is licensed by the New York Department of Financial Services, with a registered address in New York, New York. Defendant BNP Paribas North America Inc. (“BNPNA”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. BNPNA engages in investment banking and securities brokerage activities, and is an affiliate of BNP Group.

31. BNP Paribas Prime Brokerage, Inc. (“BNPPB”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. BNPPB is a wholly-owned subsidiary of BNPNA. BNPPB is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. BNP Paribas Securities Corp. (“BNPS”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. BNPS is a wholly-owned subsidiary of BNPNA. BNPS is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “BNP Paribas” includes Defendants BNP Group, BNPNA, BNPPB, BNPS, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

32. During the Class Period, BNP Paribas was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in its 2012 Annual Report, BNP Paribas described itself as a “major and innovating player” in global fixed-income markets, including by “providing pricing and liquidity across Credit, Rates, and FX.”<sup>5</sup> BNP Paribas also consistently appears on *Euromoney*’s surveys of the top participants in the global FX market. And as noted above, BNPPB and BNPS are registered futures merchants and clearing members of the CME.

33. As detailed below, government regulators have specifically targeted BNP Paribas as part of their ongoing investigations into the manipulation of the FX market. BNP Paribas has since suspended or terminated at least one foreign exchange employee, and banned the use of multi-bank chat rooms by its FX personnel.

34. ***Citi Defendants.*** Defendant Citigroup, Inc. (“Citigroup”) is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in New York, New York. Defendant Citibank N.A. (“Citibank”) is a federally chartered national banking association with its principal place of business in New York, New York. Citibank is a wholly owned subsidiary of Citigroup. Defendant Citigroup Global Markets Inc. (“CGMI”) is a corporation organized and existing under the laws of the State of New York, with its principal place of business in New York, New York. CGMI is a wholly owned subsidiary of Citigroup. CGMI is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “Citi” includes Defendants Citigroup, Citibank, CGMI, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

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<sup>5</sup> BNP Paribas 2012 Annual Report (available at [https://invest.bnpparibas.com/sites/default/files/documents/rapport\\_annuel\\_2012\\_bnpparibas.pdf](https://invest.bnpparibas.com/sites/default/files/documents/rapport_annuel_2012_bnpparibas.pdf)).

35. During the Class Period, Citi was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For example, in its 2013 Annual Report, Citigroup touted its ranking as “Best FX Bank” in various industry publications.<sup>6</sup> And in a Resolution Plan filed with the FDIC, Citigroup and Citibank listed as a “core business line” its FX operations, which “include[s] foreign exchange spot, forwards and derivatives.”<sup>7</sup> Citi also consistently appears toward the top of *Euromoney*’s surveys of the top participants in the global FX market. And in its Consent Orders on Citi, the OCC observed that Citi “engages in foreign exchange business (including G10 and other currencies, sales and trading in spot, forwards, options, or other derivatives)” and “was an active dealer in G10 spot foreign exchange market.” In addition, as noted above, CGMI is a registered futures merchant and a clearing member of the CME.

36. As detailed below, government regulators have specifically targeted Citi as part of their ongoing investigations into the manipulation of the FX market. The CFTC and FCA have already concluded that Citi colluded with others banks to manipulate the FX market. Citi has since suspended or terminated at least three foreign exchange employees, and banned the use of multi-bank chat rooms by its FX personnel.

37. ***Credit Suisse Defendants.*** Defendant Credit Suisse Group AG (“CSGAG”) is a financial holding company organized and existing under the laws of Switzerland with its principal place of business in Zurich, Switzerland. CSGAG has substantial operations in the U.S., including in New York. CSGAG is licensed by the New York Department of Financial Services with a registered address in New York, New York.

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<sup>6</sup> Citigroup Inc. 2013 Annual Report (available at <http://www.citigroup.com/citi/investor/quarterly/2014/annual-report/>).

<sup>7</sup> Resolution Plan for Citigroup Inc. & Citibank, N.A. (Jun. 29, 2012) (available at <https://www.fdic.gov/regulations/reform/resplans/plans/citi-1207.pdf>).



38. Defendant Credit Suisse AG (“CSAG”) is a bank organized and existing under the laws of Switzerland with its principal place of business in Zurich, Switzerland. CSAG is a wholly owned subsidiary of CSGAG. CSAG has substantial operations in the U.S., including in New York. CSAG has a major branch and thousands of employees in New York, and is licensed by the New York Department of Financial Services with a registered address in New York, New York. In addition, CSAG is subject to regulation by the Federal Reserve Bank of New York, as a “covered bank” under Dodd-Frank.

39. Defendant Credit Suisse Securities (USA) LLC (“CSS”) is a limited liability company organized and existing under the laws of Delaware, with its principal place of business in New York, New York. CSS is a wholly owned subsidiary of CSGAG. CSS is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. CSS is also registered with FINRA. Defendant Credit Suisse International (“CSI”) is a bank with its principal place of business in the U.K. CSI is a wholly owned subsidiary of CSGAG, and is a clearing member of CME Clearing. As used herein, the term “Credit Suisse” includes Defendants CSGAG, CSAG, CSS, CSI, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

40. During the Class Period, Credit Suisse was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in a Resolution Plan filed with the Federal Reserve, Credit Suisse stated that its “most frequently used freestanding derivative products, entered into for trading and risk management purposes, include interest rate, credit default and cross-currency swaps, interest rate and foreign exchange options, foreign exchange forward contracts and

foreign exchange and interest rate futures.”<sup>8</sup> Similarly, in its 2013 Annual Report, Credit Suisse stated that its FX business includes “market making in products such as spot and options.”<sup>9</sup> In addition, Credit Suisse consistently appears on *Euromoney*’s surveys of the top participants in the global FX market. And as noted above, CSS and CSI are registered futures merchants and clearing members of the CME.

41. As detailed below, government regulators have specifically targeted Credit Suisse as part of their ongoing investigations into the manipulation of the FX market. Credit Suisse has since substantially scaled back its FX trading operations, and banned the use of multi-bank chat rooms by its FX personnel.

42. ***Deutsche Bank Defendants.*** Defendant Deutsche Bank AG is a financial services company organized and existing under the laws of Germany with its principal place of business in Frankfurt, Germany. Deutsche Bank AG has substantial operations in the U.S., including in New York. Deutsche Bank AG has a regional branch office in New York, New York, which is licensed through the New York Financial Services Division, and is regulated by the Federal Reserve and the CFTC as a registered swap dealer. Deutsche Bank has described its New York branch as a Material Entity, which is defined as “significant to the activities of a core business line or critical operation.”<sup>10</sup> The New York branch “engag[es] primarily in traditional lending and deposit activities, as well as trading activities dealing with derivatives . . . and cash financial products.”

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<sup>8</sup> Credit Suisse Global Recovery and Resolution Plan (Jun. 30, 2014) (available at <http://www.federalreserve.gov/bankinforeg/resolution-plans/credit-suisse-1g-20140701.pdf>).

<sup>9</sup> Credit Suisse 2013 Annual Report, filed on Form 20-F (available at <https://www.credit-suisse.com/media/cc/docs/investors/z-20f-2013.pdf>).

<sup>10</sup> Deutsche Bank U.S. Resolution Plan, July 2014 Submission, at 4 (Jul. 1, 2014) (available at <http://www.federalreserve.gov/bankinforeg/resolution-plans/deutsche-bank-1g-20140701.pdf>).

43. Deutsche Bank Securities Inc. (“DBSI”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. DBSI is an indirect wholly owned subsidiary of Deutsche Bank AG. DBSI is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “Deutsche Bank” includes Defendant Deutsche Bank AG, DBSI, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

44. During the Class Period, Deutsche Bank was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in a Resolution Plan filed with the Federal Reserve, Deutsche Bank designated FX trading as a “Core business line,” and explained that it “engages in all aspects of the foreign exchange business, including in standard spot, FX derivatives, and forward markets and electronic trading.”<sup>11</sup> In addition, Deutsche Bank consistently appears at the top spot on *Euromoney*’s surveys of the top participants in the global FX market. And as noted above, DBSI is a registered futures merchant and a clearing member of the CME.

45. As detailed below, government regulators have specifically targeted Deutsche Bank as part of their ongoing investigations into the manipulation of the FX market. Deutsche Bank has since suspended or terminated at least five FX employees, overseen the departure of other key personnel, and banned the use of multi-bank chat rooms by its FX personnel.

46. ***Goldman Sachs Defendants.*** Defendant The Goldman Sachs Group, Inc. (“GSG”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. GSG is a bank holding company and a financial

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<sup>11</sup> Deutsche Bank U.S. Resolution Plan (Jul. 1, 2014) (available at <http://www.federalreserve.gov/bankinfo/resolution-plans/deutsche-bank-1g-20140701.pdf>).

holding company. Defendant Goldman, Sachs & Co. (“GSC”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. GSC is a wholly owned subsidiary of GSG, and is the principal operating subsidiary of GSG. GSC is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “Goldman Sachs” includes Defendants GSG, GSC, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

47. During the Class Period, Goldman Sachs was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in a Resolution Plan filed with the Federal Reserve, Goldman Sachs disclosed that it regularly uses futures, forwards, swaps, and options to “manage foreign currency exposure,” and described its operating entity J. Aron & Company as a “foreign exchange market maker.”<sup>12</sup> Goldman Sachs also consistently appears on *Euromoney*’s surveys of the top participants in the global FX market. And as noted above, GSC is a registered futures merchant and a clearing member of the CME.

48. As detailed below, government regulators have specifically targeted Goldman Sachs as part of their ongoing investigations into the manipulation of the FX market. Goldman Sachs has since overseen the departure of at least three senior FX executives, and banned the use of multi-bank chat rooms by its FX personnel.

49. ***HSBC Defendants.*** Defendant HSBC Holdings plc (“HSBC Holdings”) is a company organized and existing under the laws of the United Kingdom with its principal place of business in London, England. HSBC Holdings and its subsidiaries have substantial operations

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<sup>12</sup> The Goldman Sachs Group, Inc. Global Resolution Plan (Jun. 27, 2014) (available at <http://www.federalreserve.gov/bankinforeg/resolution-plans/goldman-sachs-1g-20140701.pdf>).

in the U.S., including in New York. Defendant HSBC Bank plc (“HSBC Bank”) is a company organized and existing under the laws of the United Kingdom with its principal place of business in London, England. HSBC Bank is a wholly owned subsidiary of HSBC Holdings. HSBC Bank and its subsidiaries have substantial banking operations in the U.S., including in New York.

50. Defendant HSBC North America Holdings Inc. (“HSBC North America”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. HSBC North America is a wholly owned subsidiary of Defendant HSBC Holdings, and is the holding company for HSBC Holdings’ operations in the U.S. Defendant HSBC Bank USA, N.A. (“HSBC Bank USA”) is a federally chartered national banking association with its principal place of business in McLean, Virginia. HSBC Bank USA is a wholly owned subsidiary of Defendant HSBC Holdings. HSBC Bank USA has its principal executive office in New York, New York, and has branch offices throughout New York.

51. Defendant HSBC Securities (USA) Inc. (“HSBC Securities”) is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. HSBC Securities is an indirect wholly owned subsidiary of HSBC Holdings. HSBC Securities is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “HSBC” includes Defendants HSBC Holdings, HSBC Bank, HSBC North America, HSBC Bank USA, HSBC Securities, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

52. During the Class Period, HSBC was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot

and forward transactions. For instance, in a Resolution Plan filed with the Federal Reserve, HSBC described as its foreign exchange operations as a “core business line” that “provides services in foreign exchange (FX) spot, forwards, swaps and other related derivatives.”<sup>13</sup> HSBC also consistently appears on *Euromoney*’s surveys of the top participants in the global FX market. And as noted above, HSBC Securities is a registered futures merchant and a clearing member of the CME.

53. As detailed below, government regulators have specifically targeted HSBC as part of their ongoing investigations into the manipulation of the FX market. The CFTC and FCA have already concluded that HSBC colluded with others banks to manipulate the FX market. HSBC has since suspended or terminated at least two FX employees, and banned the use of multi-bank chat rooms by its FX personnel.

54. ***JPMorgan Defendants.*** Defendant J.P. Morgan Chase & Co. (“JPMC”) is a corporation organized and existing under the laws of the State of Delaware, with its principal place of business in New York, New York. On May 29, 2008, JPMC merged with Bear Stearns & Co., assuming its assets and liabilities. Before the acquisition, Bear Stearns & Co. was a foreign exchange dealer and acted as a counterparty in foreign exchange transactions.

55. Defendant J.P. Morgan Chase Bank, N.A. (“JPMCB”) is a federally chartered national banking association with its principal place of business in New York, New York. JPMCB is a wholly owned subsidiary of JPMC. Defendant J.P. Morgan Securities LLC (“JPMS”) is a limited liability company organized and existing under the laws of the State of Delaware, with its principal place of business in New York, New York. JPMS and is an indirect wholly owned subsidiary of JPMC. JPMS is registered as a broker-dealer with the SEC,

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<sup>13</sup> HSBC Holdings plc US Resolution Plan (Jul. 1, 2014) (available at <http://www.federalreserve.gov/bankinfo/resolution-plans/hsbc-2g-20140701.pdf>).

registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “JPMorgan” includes Defendants JPMC, JPMCB, JPMS, and their subsidiaries and affiliates, including Bear Stearns & Co., that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

56. During the Class Period, JPMorgan was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in a Resolution Plan filed with the Federal Reserve, JPMorgan disclosed that its “[c]ustomers use derivatives to mitigate or modify . . . foreign exchange . . . risks” and that “the Firm actively manages the risks from its exposure to these derivatives by entering into other derivative transactions.”<sup>14</sup> JPMorgan confirmed that “foreign exchange forward contracts are used to manage the foreign exchange risk,” and that the firm “enters into, as principal, certain exchange traded derivatives . . . such as futures and options.” JPMorgan further disclosed that the notional amount of its FX contracts in 2013 was over \$8.5 trillion dollars, including over \$3.7 trillion in FX spot, futures, and forward transactions.

57. JPMorgan also consistently appears on *Euromoney*’s surveys of the top participants in the global FX market. In its Consent Orders on JPMorgan, the OCC observed that JPMorgan “engages in foreign exchange business (including G10 and other currencies, sales and trading in spot, forwards, options, or other derivatives)” and “was an active dealer in G10 spot foreign exchange market.” And as noted above, JPMS is a registered futures merchant and a clearing member of the CME.

58. As detailed below, government regulators have specifically targeted JPMorgan as part of their ongoing investigations into the manipulation of the FX market. The CFTC, FCA,

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<sup>14</sup> JPMorgan Chase & Co. Resolution Plan Public Filing (Jul. 1, 2014) (<http://www.federalreserve.gov/bankinfo/reg/resolution-plans/jpmorgan-chase-1g-20140701.pdf>).

and OCC have each already concluded that JPMorgan colluded with others banks to manipulate the FX market. JPMorgan has since suspended or terminated at least two FX employees, and banned the use of multi-bank chat rooms by its FX personnel.

59. ***Morgan Stanley Defendant.*** Defendant Morgan Stanley is a corporation organized and existing under the laws of Delaware with its principal place of business in New York, New York. Morgan Stanley is a financial holding company and global financial services firm. Defendant Morgan Stanley & Co., LLC (“MSC”) is a limited liability company organized and existing under the laws of Delaware with its principal place of business in New York, New York. MSC is a wholly owned subsidiary of Morgan Stanley. MSC is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. As used herein, the term “Morgan Stanley” includes Defendant Morgan Stanley, MSC, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

60. During the Class Period, Morgan Stanley was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in a Resolution Plan filed with the FDIC, Morgan Stanley identified its FX operations as a “core business line,” which “provides execution in spot, forward, and derivative currency markets to government and institutional clients.”<sup>15</sup> Morgan Stanley also consistently appears on *Euromoney’s* surveys of the top participants in the global FX market. And as noted above, MSC is a registered futures merchant and a clearing member of the CME.

61. As detailed below, government regulators have specifically targeted Morgan

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<sup>15</sup> 2014 Morgan Stanley Resolution Plan (Jul. 1, 2014) (available at <https://www.fdic.gov/regulations/reform/resplans/plans/morgan-165-7114.pdf>).



Stanley as part of their ongoing investigations into the manipulation of the FX market. Morgan Stanley has since overseen the departure of two high-ranking FX executives, and banned the use of multi-bank chat rooms by its FX personnel.

62. ***RBS Defendants.*** Defendant The Royal Bank of Scotland Group plc (“RBS Group”) is a bank holding company organized and existing under the laws of the United Kingdom, with its principal place of business in Edinburgh, Scotland. RBS Group has substantial activities in the U.S., including in New York. RBS Group is registered in the U.S. as a financial holding company and is subject to regulation and supervision by the Fed.

63. Defendant Royal Bank of Scotland plc (“RBS plc”) a corporation organized and existing under the laws of the United Kingdom with its principal place of business in Edinburgh, Scotland. RBS plc is a wholly owned subsidiary of RBS Group, and is the primary operating bank and subsidiary of RBS Group. RBS plc has substantial operations in the U.S., including in New York. RBS plc has branches in the U.S., including in New York, and has a registered office in New York. RBS plc is also a member of the CME and ICE.

64. Defendant RBS Securities, Inc. (“RBS Securities”) is a corporation organized and existing under the laws of Delaware, with its principal places of business in Stamford, Connecticut. RBS Securities is a wholly owned subsidiary of RBS Group, and is RBS Group’s primary US broker-dealer. RBS Securities is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and is a clearing firm member of CME Clearing. RBS Securities engages in substantial trading activities in New York. As used herein, the term “RBS” includes Defendants RBS Group, RBS plc, RBS Securities, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

65. During the Class Period, RBS was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, RBS consistently appears on *Euromoney's* surveys of the top participants in the global FX market. In its 2013 Annual Report, RBS stated that its “FX Options benefitted from opportunities in volatile FX and emerging markets,” and that its spot FX business “minimised the impact” of weak currency volumes.<sup>16</sup> In addition, RBS Securities’ FINRA registration specifies that it “engages in swaps and foreign exchange brokerage,” and as noted above, RBS Securities is a registered futures merchant and a clearing member of the CME.

66. As detailed below, government regulators have specifically targeted RBS as part of their ongoing investigations into the manipulation of the FX market. The CFTC and FCA have already concluded that RBS colluded with others banks to manipulate the FX market. RBS has since placed at least six FX employees into a disciplinary process (three of whom have been suspended), and banned the use of multi-bank chat rooms by its FX personnel.

67. ***UBS Defendants.*** Defendant UBS AG is a financial institution organized and existing under the laws of Switzerland, with its principal places of business in Basel and Zurich, Switzerland. UBS AG engages in substantial activities in the U.S., including in New York. UBS AG has branches and representative offices throughout the U.S., including in New York. UBS AG has its U.S. headquarters, and thousands of employees, in New York, New York.

68. UBS Securities LLC (“UBS Securities”) is a limited liability company organized and existing under the laws of Delaware, with its principal place of business in New York, New York. UBS Securities is an indirect wholly owned subsidiary of UBS AG. UBS Securities is registered as a broker-dealer with the SEC, registered as a futures merchant with the CFTC, and

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<sup>16</sup> RBS Annual Report and Accounts 2013 (available at <http://www.investors.rbs.com/~media/Files/R/RBS-IR/2013-reports/annual-report-and-accounts-2013.pdf>).

is a clearing firm member of CME Clearing. As used herein, the term “UBS” includes Defendants UBS AG, UBS Securities, and their subsidiaries and affiliates that bought, sold, settled, or otherwise transacted in FX instruments during the Class Period.

69. During the Class Period, UBS was a major participant in the FX market (including by transacting in spots, forwards, futures, and options), and a major dealer for FX spot and forward transactions. For instance, in a Resolution Plan filed with the Federal Reserve, UBS listed its foreign exchange franchise as a “core business line,” and confirmed that the bank’s FX contracts “include spot, forward and cross-currency swaps and options and warrants.”<sup>17</sup> UBS also consistently appears toward the top of *Euromoney*’s surveys of the top participants in the global FX market. In its Report on UBS’s manipulation of the FX market, FINMA stated that UBS was one of the banks that “dominated” the FX market, with an average market share of 8.9% between 2010 and 2013. And as noted above, UBS Securities is a registered futures merchant and a clearing member of the CME.

70. As detailed below, government regulators have specifically targeted UBS as part of their ongoing investigations into the manipulation of the FX market. The CFTC, FCA, and FINMA have each already concluded that UBS colluded with others banks to manipulate the FX market. UBS has since suspended or terminated at least nine FX employees, and banned the use of multi-bank chat rooms by its FX personnel.

71. Various other entities and individuals unknown to Plaintiffs at this time participated as co-conspirators in the acts complained of, and performed acts and made statements that aided and abetted and were in furtherance of, the unlawful conduct alleged

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<sup>17</sup> 2014 UBS US Resolution Plan (Jul. 2014) (available at <http://www.federalreserve.gov/bankinfo/resolution-plans/ubs-1g-20140701.pdf>).

herein. Defendants are jointly and severally liable for the acts of their co-conspirators whether named or not named as Defendants in this Complaint.

## **FACTUAL ALLEGATIONS**

### **I. BACKGROUND ON THE FOREIGN EXCHANGE MARKET AND FUTURES TRANSACTIONS**

#### **A. The Foreign Exchange Market Generally**

72. Foreign exchange involves the buying and selling of currency, or the exchanging of one type of currency for another. The FX market is the largest in the financial system, with an estimated daily turnover of \$5.3 trillion in April 2013, up from \$4.0 trillion in April 2010.<sup>18</sup> FX trading in the U.S. alone averaged \$1.263 trillion per day in April 2013, up from \$864 billion per day in April 2010.<sup>19</sup>

73. Currencies are traded in pairs. The top three currency pairs are Euro/U.S. dollar, Japanese Yen/U.S. dollar, and British pound/U.S. dollar, which together account for over half of all FX market turnover globally. In April 2013, the U.S. dollar was on one side of 87% of all FX transactions globally.

74. The main types of trades in the FX market are spot, forwards, futures, and options transactions. A spot transaction is the exchange of two currencies between counterparties at an agreed-to rate for immediate delivery. A forward contract, like a spot transaction, also involves the exchange of two currencies between counterparties at an agreed-to rate at the time of the contract, but with delivery at some time in the future. Trading of FX spots and forwards is

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<sup>18</sup> Bank of International Settlements, *Triennial Central Bank Survey* (Sept. 2013) (available at <http://www.bis.org/publ/rpfx13fx.pdf>).

<sup>19</sup> Federal Reserve Bank of New York, *The Foreign Exchange and Interest Rate Derivatives Markets: Turnover in the United States, April 2013* (Apr. 2013) (available at <http://www.newyorkfed.org/markets/pdf/2013triennialreport.pdf>).

largely done over-the-counter, meaning that there is no centralized exchange and that a customer must utilize a dealer, such as one of the Defendants.

75. An FX futures contract is an agreement to buy or sell a foreign currency at a set price and date in the future. Futures differ from forwards largely in that they are traded on centralized exchanges—such as the Chicago Mercantile Exchange (“CME”) and the ICE Futures U.S. Exchanges (“ICE”)—and are cleared through a central clearinghouse, which acts as the buyer to every seller and the seller to every buyer, rather than being transacted directly with the counterparty. Because they are exchange-traded, futures are highly standardized, whereas forwards and other OTC transactions are customized to the needs of the transaction participants. Options on FX futures give the holder the right, but not the obligation, to buy or sell an underlying FX futures contract at a certain price.

**B. FX Spot Transactions, and the Importance of Prices at 10 a.m. Central Time**

76. For FX spots and forwards, dealers (also called market makers) exist to provide liquidity and to ensure there is always a counterparty for any transaction. To initiate an FX spot or forward transaction, a customer contacts a dealer indicating the currency and quantity she wishes to trade, and inquires as to the price. The dealer states prices at which it is willing to buy (the “bid”) and sell (the “ask”). The customer then decides whether to buy, sell, or pass. The dealer is compensated for its services by way of the gap between the quoted buy and sell prices, the “bid-ask spread.” Dealers profit by providing this service to customers.

77. Historically and to a large extent today, FX spot and forward transactions were carried out by telephoning a salesperson or voice broker at a dealer bank, who would receive the trade information, provide a bid and an ask price, and often accept a trade. Because FX salespeople have strong institutional relationships and keep track of clients’ order histories, they are often able to predict client trading even before an order is placed. Throughout the order

process salespeople are in regular contact with traders. They inform the traders of incoming potential orders, they confirm bid and ask prices, and they ultimately convey placed orders to the trading desk for processing. Thus, generally traders are aware of all potential and pending trades that could be processed through their desks.

78. Beginning in the late 1990s, the FX market has seen changes that tightened bid-ask spreads and increased concentration as well as market power among the dealers, including Defendants. In the late 1990s and continuing to the early 2000s, electronic trading platforms emerged as a way to process foreign exchange transactions. In response to their customers' demands for increased electronic trading, dealers—including many of the Defendants—launched proprietary electronic trading platforms in the early 2000s, including UBS's FX Trader, Barclays' BARX, Deutsche Bank's Autobahn, and Citi's Velocity.

79. The effect of these trading platforms was to narrow bid-ask spreads by lowering dealers' operating costs and reducing execution times. While in the 1980s the bid-ask spreads in the over-the-counter market were roughly 20 times those in the inter-dealer market, they have since compressed and are roughly equal. These bid-ask spreads have only reduced further since the financial crisis.

80. As the *Financial Times* reported, based on interviews with traders, given that spreads are "the only source of client-driven income for banks in forex trades," this reduction in spreads "may have encouraged traders to seek less transparent ways to cut their risks."<sup>20</sup>

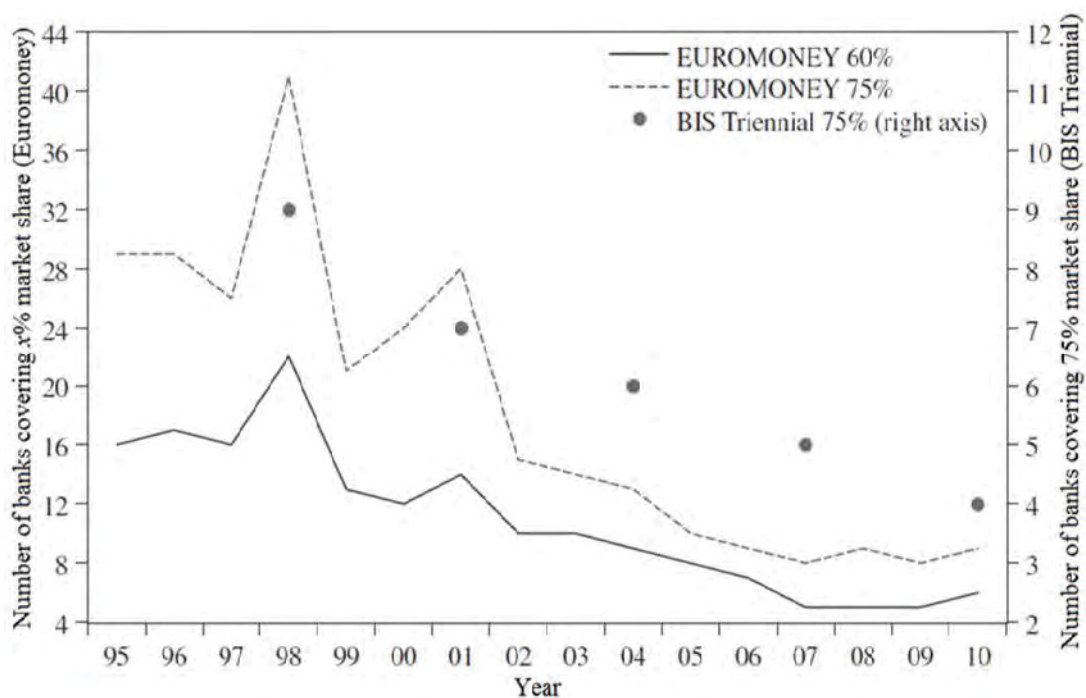
81. The introduction of electronic trading also resulted in increase market concentration among FX dealers. Because dealers have been forced to invest heavily in electronic trading technology while at the same time quoting tighter bid-ask spreads, smaller

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<sup>20</sup> Daniel Schafer, Alice Ross & Delphine Strauss, *Foreign Exchange: The Big Fix*, *Financial Times* (Nov. 12, 2013).

dealers have largely exited the FX market. This increased concentration facilitated the collusion at issue in this complaint.

82. Thus, between 1998 and 2010, the market share of the top three dealers—all Defendants—rose from 19% to 40%. The increasing concentration of the FX market is summarized below.



83. In recent years, Defendants have taken a stranglehold over the FX market. According to a survey by Euromoney, an industry publication, Defendants occupy all twelve of the top spots by market share, and have an aggregate market share of **over 80%**. Defendants' shares of the FX market in the previous two years are summarized below.

Defendant	2012 Market Share	2013 Market Share
Deutsche Bank	14.57%	15.18%
Citigroup	12.26%	14.90%
Barclays	10.95%	10.24%
UBS	10.48%	10.11%
HSBC	6.72%	6.93%
JP Morgan	6.60%	6.07%

RBS	5.86%	5.62%
Credit Suisse	4.68%	3.70%
Morgan Stanley	3.52%	3.15%
Goldman Sachs	3.12%	2.75%
BNP Paribas	2.63%	2.52%
Bank of America	2.41%	3.08%
Defendants' Aggregate Market Share	83.80%	84.25%

84. As the market has become more concentrated, the community of FX traders at dealer banks has also shrunk. These traders receive bonuses tied to their individual profits and the profits of the entire trading floor. Since the financial crisis, there have been staff reductions and the FX trading desks, even at the largest banks such as Defendants, are typically staffed with only eight to ten traders, many of whom have worked previously with their counterparts in other banks. Thus the market is dominated by a small group of individuals, often with strong social ties formed by working with each other at some point in the past. In fact, many of these traders live near each other, socialize together, belong to the same social clubs, and participate on the same professional committees.

85. The *Financial Times* reports that interviews with more than a dozen foreign exchange veterans and investors suggest these changes in the structure of the Defendants' businesses and the small, close-knit exchange trader community have increased incentives and opportunism for collusion.<sup>21</sup> As one former Citi banker noted, "This is a market in which price fixing and collusion could actually work."<sup>22</sup>

86. While an FX spot or forward contract may be entered into and executed at any time, investors often use what are called WM/Reuters rates as the price in a spot or forward transaction.

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<sup>21</sup> Schafer et al., *supra* note 20.

<sup>22</sup> *Id.*



87. A WM/Reuters rate, calculated largely based on actual trades by a joint venture between State Street Corp. (which owns World Markets Co. or “WM”) and Reuters, provides a standardized rate that allows investors to price, settle, and value financial instruments such as spot and forwards transactions. A WM/Reuters rate is used by investors to avoid reconciliation differences that might result from making changes to a portfolio benchmarked against an index. In other words, investors often decide to tie a spot or forward transaction to a WM/Reuters rate in order to avoid poor or untimely execution of currency trades.

88. Unlike some other financial benchmarks, WM/Reuters rates are merely median prices of all trades in a fixed period for currency pairs, determined on a half-hourly, hourly, or end-of-day basis.

89. A WM/Reuters rate is calculated using data from bids and offers and actual foreign exchange trades executed over a one-minute period (or two minutes for some currencies), lasting 30 seconds before to 30 seconds after the time of the rate calculation. According to State Street Corp.: “The process for capturing this information and calculating the spot fixings is automated and anonymous.”<sup>23</sup> Using that data, a median bid and offer rate are calculated, and then a mid rate is calculated from these median bid and offer rates—that rate is the WM/Reuters rate for that hour. The median methodology employed by WM/Reuters takes no account of the size of the notional behind each quote, weighting all quotes equally.

90. The most widely used WM/Reuters rate is the WM/Reuters closing spot rate (defined above as the “WM/Reuters Closing Rate”), which is calculated around 4 p.m. London time (10 a.m. Central time). There is a WM/Reuters Closing Rate for every currency pair traded.

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<sup>23</sup> Liam Vaughan, Gavin Finch & Ambereen Choudhury, *Traders Said to Rig Currency Rates to Profit Off Clients*, Bloomberg (Jun. 12, 2013).

**C. FX Futures and Options Transactions, and the Importance of Prices at 2 p.m. Central Time**

91. Unlike the over the counter process by which FX spot and forward transactions are conducted, FX futures and options on futures are traded on exchanges like CME Globex and ICE Futures U.S. Exchange. FX Futures contracts are subject to standardized terms and conditions that govern the currency pairs, the quantity of currency to be exchanged, and the delivery time and place. For example, FX futures generally call for delivery of a specified quantity of a specified currency, or a cash settlement, during the months of March, June, September, and December. The quarterly Settlement Date is the third Wednesday in March, June, September, and December, with trading ending on the second business day before the third Wednesday of the contract month (usually a Monday). The only term in an FX futures contract that is subject to variation is price.

92. Like futures, options on FX futures are also exchange-traded and are also highly standardized. Just as is the case with futures, price is the only competitive variable between options on futures contracts. There are two types of options: puts and calls. Put options give the option holder the right, but not the obligation, to sell the underlying FX futures contract at a predetermined price (the strike price). Conversely, call options give the option holder the right, but not the obligation, to buy the underlying FX futures contract at the strike price. In either case, the option buyer pays a negotiated price, or premium, to the option seller. If the option contract is exercised, the buyer of the call option or seller of the put option establishes a position in a currency futures contract. Whether an option on an FX futures contract is exercised is purely a function of the price of the underlying commodity and the strike (or exercise) price set forth in the put or call option.

93. Like other futures contracts, FX futures are secured by performance bonds that may be posted by both buyers and sellers. These performance bonds are also referred to as margin requirements, and are designed to anticipate, and secure against, the maximum anticipated one-day price movement. As set forth below, the day-to-day price movements (which determine how much margin must be posted) are calculated based on a snapshot of trading activity at a fixed time each day.

94. Positions in futures contracts are marked-to-market on a daily basis, and the corresponding profits and losses posted to, or deducted from, the trader's account. For FX futures, mark-to-market amounts are banked in cash every day, meaning that gains and losses in currency futures are realized daily. The mark-to-market amount of a given futures contract is determined by taking the end-of-day settlement price of the futures contract and subtracting the previous day's end-of-day settlement price, and multiplying that figure (positive or negative) by the net position (positive for a net long position, negative for a net short position). The end of day settlement price is calculated based on the volume weighted average price of trades made over the thirty-second interval ending at 2 p.m. Central time, *i.e.*, the CME Daily Settlement Rate fixing period.<sup>24</sup>

95. The end of day settlement price is also used to determine which expiring options contracts are in the money and which are not. At the time of expiration (typically Fridays), CME uses the CME Daily Settlement Rate to force exercise of in the money options, and to force abandonment of out of the money options, for certain currencies in order to determine which FX futures contracts will be assigned to expiring options positions.

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<sup>24</sup> The ICE FX futures exchange also uses prices around 2 p.m. Central time to perform similar calculations as done for futures on the CME exchange. Thus, all the allegations herein with respect to the CME Daily Settlement Rates are relevant to that exchange as well.

96. The most common way for an FX futures transaction to settle is for the trader to enter into an offsetting transaction in the same currency pair, amount, and maturity, leaving him with a flat position, which is equivalent to having no position at all.<sup>25</sup> When a futures contract is closed out in this way, the trader's account is credited or debited according to the value of the original contract at the time that position was closed. The final settlement price is determined by CME based on the trading prices in the relevant contract during the 30 second period between 9:15:30 a.m. and 9:16:00 a.m. Central time on the settlement date.

## **II. DEFENDANTS HAVE ADMITTED TO COLLUDING TO MANIPULATE THE FX MARKET AT MULTIPLE TIMES OF DAY**

### **A. Overview of the Tools Used by Defendants to Manipulate Prices**

97. As discussed throughout this Complaint, there was a strong incentive to manipulate prices around key times of the FX trading day. But of course doing so is “a risky strategy that [Defendants] only attempted when [they] had a high degree of knowledge of *other banks' positions*.”<sup>26</sup>

98. To remove the uncertainties and risk associated with manipulation—*i.e.*, that the market will move against a Defendant's position—and to reap greater profits in the foreign exchange market, Defendants regularly conspired with each other over the course of a decade to manipulate FX prices. These traders colluded on a daily basis, often throughout the day, about

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<sup>25</sup> This differs from forwards, where each forward contract is with a separate counterparty. In such case, entering into a second, offsetting transaction leaves the party with two sets of contractual rights and obligations, one for each of the forward contract counterparties. In contrast, because futures are transacted through a central clearinghouse that acts as buyer to every seller and seller to every buyer, an offsetting transaction leaves the trader flat vis-à-vis his central clearing counterparty, effectively canceling the original trade and locking in the profit or loss of that trade at the time of the second, offsetting transaction.

<sup>26</sup> Vaughan et al., *supra* note 23.

their customers' orders and their own intentions, and jointly agreed to work together to rig prices for currency pairs to their mutual advantage.

99. This conspiracy took place at the highest levels of Defendants' foreign exchange divisions, including through the use of numerous multi-bank chatrooms. While the participants in these chatrooms varied over time, the conspiracies orchestrated through these chatrooms to manipulate FX prices continued for over a decade. Defendants formed and participated in these chatrooms with the specific intent to collude with each other to manipulate particular currency pairs

100. For instance, in one chatroom fittingly called "The Cartel," Richard Usher acted as leader and moderator—he operated it in his position at RBS until he left in 2010, and then revived it when he joined JP Morgan the same year. Numerous other traders employed by the Defendants have been part of "The Cartel."<sup>27</sup>

101. Defendants operated other private chatrooms in addition to "The Cartel." Some of Defendants' traders were members of as many as fifty chatrooms. These chatrooms were called, among other things, "The Mafia," "The Club," "The Bandits' Club," "The Dream Team," "One Team, One Dream," and "The Sterling Lads."<sup>28</sup>

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<sup>27</sup> While the membership of "The Cartel" changed somewhat over time, its principal participants were high ranking employees from the Defendants named here. This includes: (a) Richard Usher, who, before being placed on leave, was head of spot trading for G-10 currencies at JP Morgan in London, and before that was a trader at RBS; (b) Rohan Ramchandani, who, before being suspended and then fired, was head of spot trading at Citi in London; (c) Matt Gardiner, who was suspended by Standard Chartered for his conduct as director of spot trading for EUR/USD at Barclays from 2007 to 2011 and as a trader at UBS from 2011 to 2013; and (d) Niall O'Riordan, who, until being suspended, was co-global head of G-10 and emerging market spot trading at UBS in Zurich.

<sup>28</sup> The members of these other chat rooms included: (a) Chris Ashton, head of spot trading at Barclays, and Jack Murray, Mark Clark, Russell Katz, and Jerry Urwin, also of Barclays; (b) Andrew Amantia and Anthony John of Citi; (c) Diego Moraiz, head of emerging markets trading, and Robert Wallden, Christopher Fahy, and Ezequiel Starobinsky, also of

102. The collusion among Defendants' employees was facilitated in part because many of these traders worked together previously and formed social ties. Many of the colluding traders live near each other, attend the same dinner parties, and are members of the same local golf clubs. These traders also socialize in the chatrooms they use to manipulate the foreign exchange rates, and transcripts that have been reviewed as part of the global investigation are "peppered with allusions to drinks, drugs and women."<sup>29</sup> The seamless transition between social jokes and gossip and agreements to manipulate foreign exchange rates facilitated the collusive agreements and practices in which these traders engaged.

103. The people responsible also swapped between Defendants, before reaching out to former colleagues. For instance, Chris Ashton of Barclays was co-head of spot trading with Matt Gardiner until Gardiner left Barclays for Citi, at which time Ashton and Gardiner began sharing their customers' confidential information and colluding to manipulate FX prices.

104. Other overlaps allowed for even more cross-communications. For instance, Richard Usher, Rohan Ramchandani, and Niall O'Riordan are all members of the chief dealers' subgroup formed under the umbrella of the Bank of England's London Foreign Exchange Joint Standing Committee. In that role, Usher, Ramchandani and O'Riordan regularly discussed and agreed to manipulate FX prices, despite the fact that such discussions have no legitimate relationship to the Bank of England's activities. "Records of a meeting in April 2012 . . . show dealers discussed the rules they were subject to when trading close to the times when key market

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Deutsche Bank; (d) Serge Sarramenga, chief trader for G-10 currencies, and Edward Pinto at HSBC; (e) Paul Nash and Julian Munson at RBS; (f) Roger Boehler, global head of trading at UBS; and (g) Anthony John of Citi, who was involved in the "The Sterling Lads," a chatroom specializing in the fixing of the exchange rate between U.S. dollars and the pound sterling.

<sup>29</sup> Schafer et al., *supra* note 20.

benchmarks, such as the WM/Reuters rates, are set.”<sup>30</sup> According to two people with knowledge of the meeting, these traders “talked about how they shared information about orders to reduce the risk of losses in the minutes before benchmarks are calculated.”<sup>31</sup>

105. Sources interviewed by *Bloomberg* have admitted that Defendants’ traders “would share details of orders with brokers and counterparts at banks through instant messages to align their strategies” and they “also would seek to glean information about impending trades to improve their chances of getting the desired move in the benchmark.”<sup>32</sup> Traders employed by the Defendants interviewed by the *Wall Street Journal* and *Financial Times* have also confirmed that traders would communicate through “an electronic chat room populated by top traders at financial institutions”<sup>33</sup> and “chatroom discussions between rival traders . . . allowed them to share information about pricing and order books.”<sup>34</sup> Multiple other reports confirm the chatrooms were being used to share confidential information with the intent to help manipulate prices,<sup>35</sup> *i.e.*, to “work[] as a pack” by sequencing trades to their collective advantage.<sup>36</sup>

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<sup>30</sup> Vaughan et al., *supra* note 23.

<sup>31</sup> *Id.*

<sup>32</sup> Vaughan et al., *supra* note 23.

<sup>33</sup> Katie Martin, *Forex Probe Eyes Chat Room*, Wall St. J. (Oct. 11, 2013).

<sup>34</sup> Schafer et al., *supra* note 20.

<sup>35</sup> See, e.g., Katie Martin & David Enrich, *Forex Probe Uncovers Collusion Attempts*, Wall St. J. (Dec. 19, 2013) (“common for a group of senior currency traders to discuss with their competitors types and volume of trades they planned to place”); Chiara Albanese, Katie Martin & David Enrich, *Barclays, Other Banks Expand Foreign-Exchange Review to Salespeople*, Wall St. J. (Nov. 19, 2013) (traders “inappropriately share market-sensitive information with rivals”); Gavin Finch, Liam Vaughan & Suzi Ring, *Ex-RBS Trader in U.K. Probe Said to Be JPMorgan’s Usher*, Bloomberg (Oct. 14, 2013) (transcript involving RBS’ Richard Usher, obtained by the U.K. Financial Conduct Authority, involved “messages to traders at other firms [that] included details of his trading positions”).

<sup>36</sup> E.g., Martin & Enrich, *supra* note 35.

106. There are various ways, means, and terms to refer to the trading strategies deployed to profit off the collective power Defendants' wielded. For instance: (1) "front running"—which is an illegal practice—involves trading ahead of expected orders, essentially taking profits in advance when you know the market is about to move a certain way due to an upcoming surge of activity;<sup>37</sup> (2) "banging the close" involves making a high number of trades in a coordinated fashion around a measurement period;<sup>38</sup> (3) "painting the screen" is where orders with other dealers are used to create the illusion of trading activity in a given direction; (4) "taking out the filth" and "clearing the decks" is where unfavorable transactions were netted off between Defendants, delayed, or otherwise handled in such a way as to not hit the market around a measurement period; and (5) "building," "giving you the ammo," and other terms refer to Defendants further magnifying the viability of these behaviors by transferring business to one participant, including so that the timing of execution (or non-execution) could be more centrally controlled.

107. All of these techniques, and others, boil down to the fact that by jointly pressing through transactions that went one way for a time, while withholding transactions that went the other way at the same time, Defendants could together greatly distort prices during the exact, short time frame when key measurements of the market were being taken for purposes of setting benchmarks that they were all keenly interested in.

108. In sum, Defendants succeeded in manipulating the measurements taken—*i.e.*, the benchmarks themselves. But important here is that how they got there was to work together to

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<sup>37</sup> *E.g.*, Vaughan et al., *supra* note 23.

<sup>38</sup> *Id.* ("To maximize profits, dealers would buy or sell client orders in installments during the 60-second window to exert the most pressure possible on the published rates."). In the context of WM/Reuters Closing Rates—which were based on the *median* rather than the *average* price during the measurement window—the impact of such tactics was increased by the banks' agreement to break up large transactions into smaller ones.



intentionally distort prices in the actual markets for FX transactions through the sharing of confidential, competitively sensitive information, and through the coordination of what was supposed to be competitive bidding, buying, and selling processes. Thus, Defendants' scheme involved the intentional manipulation of prices, harming investors who transacted during the periods when prices were distorted, as well as those whose accounts were impacted by margin or similar calls based on artificial benchmark prices.

**B. Government Investigations Have Confirmed that Defendants Used Such Tools to Manipulate the FX Market at Multiple Times of Day**

109. Beginning in the fall of 2013, media reports surfaced that government regulators and enforcement authorities were investigating Defendants' manipulation of the FX market. These investigations quickly grew in scope to include authorities from across the globe—including in the U.S., U.K., European Union, Switzerland, Germany, Hong Kong, Singapore, Australia, and New Zealand.

110. As detailed below, *all* of these Defendants have been specifically targeted by government regulators for their role in the manipulation of the FX market. Some of those investigations have already resulted in settlements and fines totaling **\$4.3 billion**, as well as the release of damning reports detailing exactly how these Defendants actively colluded to manipulate the FX market. Many other government investigations are still ongoing, including criminal investigations by the U.S. Department of Justice, which on information and belief will yield similar results.

**1. The CFTC's Orders on Citi, HSBC, JPMorgan, RBS, and UBS**

111. The Commodity Futures Trading Commission ("CFTC") is an independent U.S. government agency that regulates futures, options, and swaps. The CFTC's stated mission is to "foster open, transparent, competitive, and financially sound markets, to avoid systemic risk, and

to protect the market users and their funds, consumers, and the public from fraud, manipulation, and abusive practices related to derivatives and other products that are subject to the Commodity Exchange Act.”<sup>39</sup>

112. Around 2013, the CFTC launched an investigation into whether certain banks had manipulated the FX market in violation of the Commodity Exchange Act (“CEA”). On November 11, 2014, the CFTC entered into five separate Orders against Defendants Citi, HSBC, JPMorgan, RBS, and UBS.<sup>40</sup> The CFTC concluded that these Defendants violated the CEA by conspiring with other banks to manipulate FX benchmark rates, including the WM/Reuters Closing Rate. The CFTC levied substantial civil penalties on each of these Defendants: \$310 million each on Citi and JPMorgan, \$290 million each on RBS and UBS, an \$275 million on HSBC.

113. The CFTC found that each of these Defendants “by and through certain of [their] FX traders, at times sought to benefit its own trading positions or those of certain FX traders at other banks by attempting to manipulate and aiding and abetting certain traders at other banks in their attempts to manipulate certain foreign exchange benchmark rates.”<sup>41</sup> Specifically, Defendants’ FX traders “coordinated their trading with certain FX traders at other banks to attempt to manipulate certain FX benchmark rates, including the 4 p.m. WM/Reuters Closing Rate fixing period, to their benefit. These FX traders . . . and the other banks used private

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<sup>39</sup> CFTC Mission & Responsibilities (available at <http://www.cftc.gov/About/MissionResponsibilities/index.htm>).

<sup>40</sup> *CFTC Orders Five Banks to Pay over \$1.4 Billion in Penalties for Attempted Manipulation of Foreign Exchange Benchmark Rates*, Release PR 7056-14 (Nov. 12, 2014) (available, with links to Consent Orders, at <http://www.cftc.gov/PressRoom/PressReleases/pr7056-14>).

<sup>41</sup> *See, e.g., In the Matter of Citibank, N.A.*, Order Instituting Proceedings Pursuant CFTC Dkt. No. 15-03 (Nov. 11, 2014) at 2.

electronic chat rooms to communicate and plan their attempts to manipulate the FX benchmark rates for certain currency pairs.” In those electronic chat rooms, these Defendants also “disclosed confidential customer order information and trading positions, altered trading positions to accommodate the interests of the collective group, and agreed on trading strategies as part of an effort by the group to attempt to manipulate certain FX benchmark rates.”

114. The CFTC found that this misconduct occurred because Defendants “failed to adequately assess the risks associated with [their] FX traders participating in the fixing of certain FX benchmark rates,” and “lacked adequate internal controls in order to prevent [their] FX traders from engaging in improper communications with certain FX traders at other banks.” The CFTC observed that Citi, HSBC, and JPMorgan have each since banned the use of multi-bank chat rooms by FX personnel.

115. The CFTC concluded that Citi, HSBC, JPMorgan, RBS, and UBS each violated the CEA in several ways: (i) by attempting to manipulate the price of a commodity in violation of CEA Sections 6(c), 6(d) and 9(a)(2) (7 U.S.C. §§ 9, 13b, and 13(a)(2) (2012)) and Regulation 180.2, 17 C.F.R. § 180.2 (2014); (ii) by aiding and abetting the attempts of traders at other banks to manipulate FX benchmark rates, in violation of CEA Section 13(a) (7 U.S.C. § 13c(a) (2012)); and (iii) as a principal for the acts, omissions, and failures of any traders who acted as their employees and/or agents, in violation of CEA Section 2(a)(1)(B) (7 U.S.C. § 2(a)(1)(B) (2012)), and Regulation 1.2 (17 C.F.R. § 1.2 (2014)).

116. The CFTC ordered that Citi, HSBC, JPMorgan, RBS, and UBS undertake remedial measures to improve their internal controls and procedures, including monitoring systems to detect manipulation of FX benchmark rates, periodic audits of their FX operations, supervision of FX trading desks, and ongoing training and reviews of FX traders.

117. The CFTC's findings are supported by many specific examples of misconduct by each of these Defendants, generally in the form of transcripts of chat room conversations that the CFTC released with its Orders. For instance, in one electronic chat, a Citi FX trader discussed with traders from other banks whether to invite a new trader into a "Cartel" chat room:

Bank Z Trader:	7:49:55	are we ok with keeping this as is
	7:50:27	ie the info lvls & risk sharing?
Citibank Trader:	7:50:27	well...
Bank Z Trader:	7:50:30	that is the qu[estion]
Citibank Trader:	7:50:32	you know him best obv...
	7:50:39	if you think we need to adjust it
	7:50:43	then he shouldn't be[] in chat
Bank Y Trader:	7:50:54	yeah that is key
	7:51:00	simple question [Bank Z trader]
	7:51:08	I trust you implicitly [Bank Z trader]
	7:51:13	and your judgement
	7:51:16	you know him
	7:51:21	will he tell rest of desk stuff
	7:51:26	or god forbin his nyk...
Citibank Trader:	7:51:46	yes
	7:51:51	that's really imp[ortant] q[uestion]
	7:52:01	dont want other numpty's in mkt to know
	7:52:17	but not only that
	7:52:21	is he gonna protect us
	7:52:33	like we protect each other against our own branches
	7:52:46	ie if you guys are rhs5.. and my nyk is lhs..ill say my nyk lhs in few
Bank Z Trader:	7:53:52	what concerns me is that i know he'll never tell us when at risk...

118. After discussion of whether the new trader would "add huge value to this cartel," the traders decided to invite the trader into the chat room for a "1 month trial," with the Citibank trader warning him, presumably facetiously, "mess this up and sleep with one eye open at night."

119. In another example, RBS had a client order to sell the GBP/USD currency pair at the 4 p.m. WM/Reuters Closing Rate fixing period. In that situation, RBS would benefit from driving the WM/Reuters Closing Rate downward. An RBS trader shared this trade information

with other traders in an electronic chat room, and learned that they also had sell orders for that currency pair. The traders then coordinated their positions immediately before the fixing, and discussed the favorable results immediately afterwards:

15:45:357	RBS Trader:	im getting abt 80 quid now...fixing
15:45:54	Bank U Trader:	my ny 100 quid...
15:51:19	RBS Trader:	getting more than u now [Bank U Trader] betty
15:51:26	Bank U Trader:	ok thx
15:52:23	Bank W Trader:	nice job gents
15:54:16	Bank U Trader:	[RBS Trader], just matched with [Bank 1] and [Bank 2] for 100, still lhs in about 140
15:54:26	RBS Trader:	cool ....
16:00:58	Bank Z Trader:	i don my hat ....
16:01:08	Bank W Trader:	what a job
16:01:23	Bank Z Trader:	welld one lads
16:01:28	Bank W Trader:	bravo
16:07:03	RBS Trader:	1.6218..nice
16:07:33	Bank U Trader:	worked ok that one...

120. The CFTC released many other, similar examples of misconduct by traders at Citi, HSBC, JPMorgan, RBS, and UBS.

121. The CFTC's investigations are still ongoing, including against Barclays, which reportedly pulled out of settlement discussions with the CFTC and other regulators due to concerns about civil liabilities and the potential of having its New York banking license revoked.<sup>42</sup>

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<sup>42</sup> Kirstin Ridley, Joshua Franklin, and Aruna Viswanatha, Reuters, *Regulators fine global banks \$4.3 billion in currency investigation* (Nov. 12, 2014) (available at <http://www.reuters.com/article/2014/11/12/us-banks-forex-settlement-cftc-idUSKCN0IW0E520141112>); Stephen Morris and Richard Partington, Bloomberg, *Barclays Falls After FX Settlement Delay Reduces Discount* (Nov. 11, 2014) (available at <http://www.bloomberg.com/news/articles/2014-11-12/barclays-says-not-ready-to-settle-in-global-fx-probe>).

## 2. The FCA's Notices on Citi, HSBC, JPMorgan, RBS, and UBS

122. The Financial Conduct Authority ("FCA") is an independent financial regulatory body in the U.K, whose stated objectives are to "protect consumers," "protect financial markets," and "promote competition."<sup>43</sup>

123. The FCA launched its own investigation into the banks' manipulation of the FX market. On November 11, 2014, the FCA entered Final Notices on Defendants Citi, HSBC, JPMorgan, RBS, and UBS.<sup>44</sup> The FCA found that each of these Defendants violated the FCA's Principles of Business by failing to "control its trading operations in the G10 spot FX market, with the result that traders in this part of its business were able to behave in a manner that put [its own] interests ahead of the interests of its clients, other market participants and the wider UK financial system." The FCA levied substantial civil penalties on each of these Defendants: \$358 million on Citi, \$343 million on HSBC, \$352 million on JPMorgan, \$344 million on RBS, and \$371 million on UBS.

124. The FCA found that Citi, HSBC, JPMorgan, RBS, and UBS each "allowed the following behaviours to occur . . . (1) Attempts to manipulate the WMR and the ECB fix rates in collusion with traders at other firms, for [its] own benefit and to the potential detriment of certain of its clients and/or other market participants; (2) Attempts to trigger clients' stop loss orders for [its] own benefit and to the potential detriment of those clients and/or other market participants; and (3) Inappropriate sharing of confidential information with traders at other firms, including specific client identities and, as part of (1) and (2) above, information about clients' orders." The FCA detailed the various techniques that each of these Defendants used to accomplish this

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<sup>43</sup> FCA, What we do (available at <http://www.fca.org.uk/about/what>).

<sup>44</sup> *FCA fines five banks 1.1 billion for FX failings and announces industry-wide remediation program* (Nov. 12, 2014) (available, with links to Final Notices, at <http://www.fca.org.uk/news/fca-fines-five-banks-for-fx-failings>).

manipulation, including by “taking out the filth” or “clearing the decks,” (netting off orders with third parties who had positions in the opposition direction as Defendants’), “giving you the ammo,” (consolidating orders with a single trader to more effectively carry out a manipulation strategy), “building” (transacting with third parties to increase the volume of orders in the desired direction), and “overbuying” or “overselling” (increasing the volume traded at the fix in the desired direction in excess of the amount necessary to manage risk).

125. The FCA held that these Defendants’ misconduct was “extremely serious” and “had a very serious and adverse effect on markets . . . due to the fundamental importance of spot FX benchmarks and intra-day rates for G10 currencies, their widespread use by market participants and the consequent negative impact on confidence in the spot FX market and the wider UK financial system arising from misconduct in relation to them.”

126. The FCA also provided specific examples of misconduct by each of these Defendants. For instance, on one day during the Class Period, JPMorgan had net buy orders of the EUR/USD currency pair at the WM/Reuters Closing Rate fixing period, which meant that it would benefit if it could move the rate upwards. In the 20 minutes preceding the fixing, a JPMorgan trader disclosed its net orders to another trader, and agreed to “join forces” and “double team em” by coordinating with the other trader to move the fix rate upwards. Prior to the fix window, JPMorgan “built” the volume of EUR that it needed to buy in a series of transactions with market participants. Then during the fixing window, JPMorgan and the collaborating trader entered a series of large buy orders totaling EUR 259 million—which accounted for 41% of the total volume of EUR/USD bought during the fix window. The strategy was a success, generating a profit of approximately \$33,000. Afterward, the collaborating trader stated “sml rumour we havent lost it” to which the JPMorgan trader responded

“we...do...dollarrr.” The collaborating trader’s bravado continued into the next day, stating to yet another trader “we were EPIC at the [WMR] fix yest” and “i dragged [JPMorgan] in, we covered all the bases b/w us.”

127. The FCA provided a similar example of fix manipulation by HSBC, which held a net sell position and would benefit from moving the WM/Reuters Closing Rate lower. An HSBC trader accomplished this by coordinating with traders at three other firms to “team whack it.” These traders used a variety of techniques, including “building,” “clearing the decks,” and coordinating large sell orders in and around the fixing window to suppress the closing rate. The result was a profit of approximately \$162,000. The traders congratulated one another by saying “nice work gents...I don my hat”, “Hooray nice team work”, “bravo...cudnt been better” and “have that my son...v nice mate” and “dont mess with our ccy [currency].” One of the traders commented “there you go ... go early, move it, hold it, push it.” The HSBC trader stated “loved that mate... worked lovely... pity we couldn’t get it below the 0012” and “we need a few more of those for me to get back on track this month.” The FCA released many other, similar examples of misconduct by traders at Citi, HSBC, JPMorgan, RBS, and UBS.

128. The FCA’s investigations are still ongoing, including against Barclays, which, as discussed above, reportedly pulled out of settlement discussions with the FCA and other regulators due to concerns about civil liabilities and the potential of having its New York banking license revoked. The FCA has also made inquiries of Morgan Stanley as part of its FX investigation.<sup>45</sup>

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<sup>45</sup> Helia Ebrahimi, CNBC, *Morgan Stanley contacted over forex probe* (Nov. 6, 2013) (available at <http://www.cnbc.com/id/101175614#>.); Jesse Hamilton, Dakin Campbell, Suzi Ring, and Gavin Finch, Bloomberg, *Banks Said to Get Enforcement Letters in FX-Rigging Probe* (Aug. 14, 2014) (available at <http://www.bloomberg.com/news/articles/2014-08-13/banks-said-to-get-enforcement-letters-in-fx-rigging-probe>).



### 3. The OCC Orders on BofA, Citi, and JPMorgan

129. The Office of the Comptroller of the Currency (“OCC”) is an independent bureau of the U.S. Department of the Treasury which regulates and supervises all national banks and federal savings associations. The OCC’s stated mission is to “ensure that national banks and federal savings associations operate in a safe and sound manner, provide fair access to financial services, treat customers fairly, and comply with applicable laws and regulations.”<sup>46</sup>

130. The OCC conducted an examination of several national banks for their involvement in the manipulation of the FX market. On November 11, 2014, the OCC entered Consent Orders against BofA, Citi, and JPMorgan.<sup>47</sup> The OCC “identified certain deficiencies and unsafe or unsound practices related to” each of those Defendants’ FX operations, and levied substantial fines: \$250 million on BofA, and \$350 million each on Citi and JPMorgan.

131. Like the other regulators, the OCC found that these Defendants used electronic messaging platforms to manipulate FX prices and benchmark rates, including by means of:

- (a) Discussions of coordinating trading strategies among the Bank’s traders and traders at others banks to manipulate the WM/Reuters spot FX benchmark rates or ECB spot FX reference rates to the benefit of the trader or the Bank or both and to the potential detriment to some of the Bank’s customers;
- (b) Discussions of trading, either alone or collusively, to trigger customers’ limit orders, such as stop loss or take profit orders, or customers’ barrier options for the trader or Bank’s benefit and to the potential detriment of such customers;
- (c) Discussions of trading in advance of pending customers’ orders for the trader or Bank’s benefit and to the potential detriment of such customers;

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<sup>46</sup> OCC, About the OCC (available at <http://www.occ.gov/about/what-we-do/mission/index-about.html>).

<sup>47</sup> *OCC Fines Three Banks \$950 Million for FX Trading Improperities*, NR 2014-157 (Nov. 12, 2014) (available, with links to Consent Orders, at <http://www.occ.gov/news-issuances/news-releases/2014/nr-occ-2014-157.html>).

(d) Discussions which resulted in disclosure of confidential Bank information, including the disclosure of information regarding customer order flows and proprietary Bank information, such as FX rate spreads.

132. The OCC found that BofA, Citi, and JPMorgan “had deficiencies in [their] internal controls and had engaged in unsafe or unsound banking practices with respect to the oversight and governance of [their] FX Trading,” which allowed the aforementioned practices to occur. The OCC ordered that BofA, Citi, and JPMorgan implement extensive remedial procedures, including effective controls, oversight, monitoring, surveillance, compliance testing, and regular audits of its FX trading activities.

133. On information and belief, the OCC’s investigations are still ongoing, and may result in similar Orders and findings as to these and other Defendants.

#### **4. The FINMA Report on UBS**

134. The Financial Market Supervisory Authority (“FINMA”) is an independent Swiss government institution responsible for financial regulation, including the supervision of banks. FINMA’s stated mandate is to “protect the interests of creditors, investors and insured persons and to ensure the proper functioning of the financial markets.”<sup>48</sup>

135. In September 2013, UBS informed FINMA and other authorities that an internal UBS investigation “had uncovered possible signs of manipulation, collusion, and other market abusive conduct” in FX trading. FINMA initiated enforcement proceedings against UBS, and released a Report of its findings on November 12, 2014.<sup>49</sup> FINMA concluded that UBS “repeatedly and over a long period of time at least attempted to manipulate foreign exchange benchmarks and acted against the interests of its own clients.” FINMA held that by doing so,

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<sup>48</sup> About FINMA, Mandate (available at <http://www.finma.ch/e/finma/Pages/Ziele.aspx>).

<sup>49</sup> *FINMA sanctions foreign exchange manipulation at UBS* (Nov. 12, 2014) (available, with link to report, at <http://www.finma.ch/e/aktuell/pages/mm-ubs-devisenhandel-20141112.aspx>).

UBS “seriously violated the requirements for proper business conduct and those for adequate organization stipulated in supervisory law,” and imposed a fine of 134 million francs (\$141 million USD).

136. Specifically, FINMA found that:

[UBS’s FX traders] repeatedly and over longer periods of time at least attempted (or deliberately accepted the possibility of) manipulation of foreign exchange benchmarks by aggressively executing trades of large volume so as to generate profits either for themselves or third parties. This was achieved due to exact timing of the execution of foreign exchange trades around the fixing window. The WMR 4pm fix, for instance, could be influenced by concentrating the bank’s own pre-positioning trades around the time slots just before or after the fix time slot. Depending on their risk appetite, traders would trade closer or further away from the fix time slot.

137. In addition:

[UBS] repeatedly and unacceptably often acted against their clients’ and counterparties’ interests, particularly by: (i) triggering (“jamming”) of stop loss orders where client stop orders were actively triggered to the bank’s advantage, (ii) front running client orders by executing aligned orders in advance, (iii) partial fills where at least a part of the client’s profitable transaction in foreign exchange was cred-ited to the bank, (iv) disclosure of confidential client information, (v) condoning actions in bad faith by third parties, (vi) occasional deceptive acts with regard to sales mark-ups, as well as excessive mark-ups associated with one of the bank’s products.

138. FINMA ordered that UBS take extensive corrective measures, including by strengthening its compliance function, limiting and monitoring certain communication media, prohibiting certain employee transactions, mandating regular internal audits, and strengthening the whistle-blowing process.

139. FINMA included with its Report extracts from hundreds of electronic chat transcripts, in which UBS traders actively attempted to manipulate FX prices and benchmarks, and/or bragged about their successes. For example:

After a fix before which trading positions had been shared: UBS trader: “nice work gents.” Trader at another bank: “not seen cable move like that in a while.”

After a fix before which trading positions had been shared: UBS trader: “yeah very nice [...] that how every day should end.”

UBS trader: “jamming some stops in eurUSD here at 0515.”

UBS trader: “ready?” Trader at another bank: “when u r.” UBS Trader A: “DONE.” UBS Trader B: “got that [...] stop out eventually?” UBS Trader A: “ya.” UBS Trader B: “nice one [...] excellent.”

UBS trader: “I was front running EVERY single offer in USDJPY and EURJPY.”

UBS trader: “the day of intervention, i was front running EVERY SINGLE ODA and I mean EVERY haha.”

UBS trader: “I made 150k Front Running the TRY STYFF.”

UBS trader: “I was using my management book to front-run an order.”

UBS trader to trader at another bank: “stay short, flow here, I tell you when we are done, keep it super hush bro.”

UBS Trader A to UBS Trader B (internal chat): “these are wicked dogs at the PM desk. Sick what they’re doing, haha.” UBS Trader B: “1.1 mio up on the day, beautiful.” UBS Trader A: “hohohoho.”

UBS trader: “call me a legend! Front run legend.”

140. FINMA’s investigation into UBS’s misconduct is ongoing, as FINMA has initiated proceedings against eleven of UBS’s former and current employees.

*(a) The DOJ’s ongoing investigation*

141. Around the fall of 2013, the U.S. Department of Justice (“DOJ”) Criminal and Antitrust Divisions launched a broad civil and criminal investigation into Defendants’ manipulation of the FX market. In an interview, U.S. Attorney General Eric Holder stated that “[w]e’ve recognized that this is an extremely consequential investigation,” and that “[t]he

manipulation we've seen so far may just be the tip of the iceberg.”<sup>50</sup> The Attorney General added that the DOJ was “taking a leading role” in this “truly global investigation.”

142. The DOJ has specifically targeted these Defendants, including but not limited to Barclays, Citi, HSBC, JPMorgan, RBS, and UBS. Many of those banks were required to produce documents and information relating to their FX operations pursuant to deferred prosecution and non-prosecution agreements they entered with the DOJ in connection with its investigation into manipulation of the LIBOR benchmark interest rate. According to Mythili Raman, the acting head of the DOJ's criminal division, “[t]he cooperation we have been able to secure as part of our agreements in the Libor investigation has been very helpful to us in terms of holding banks' feet to the fire.”<sup>51</sup> In addition, UBS reportedly approached the DOJ with incriminating documents relating to the FX probe in hope of gaining immunity or leniency from the DOJ's antitrust prosecutions as the “first firm to cooperate.”<sup>52</sup>

143. The DOJ has continued to press the Defendants for information on their FX operations. Around November 13, 2014, the DOJ reportedly gave banks one month to provide a full accounting of any misconduct.<sup>53</sup> Attorney General Eric Holder stated at that time that he

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<sup>50</sup> Ben Protess, Landon Thomas Jr. and Chad Bray, NY Times, *U.S. Investigates Currency Trades by Major Banks* (Nov. 14, 2013) (available at <http://dealbook.nytimes.com/2013/11/14/u-s-investigates-currency-trades-by-major-banks/>).

<sup>51</sup> David McLaughlin and Tom Schoenberg, Bloomberg, *Banks Aid U.S. Forex Probe, Fulfilling Libor Accords* (Jan. 22, 2014) (available at <http://www.bloomberg.com/news/articles/2014-01-23/banks-aid-u-s-forex-probe-fullfilling-libor-accords>).

<sup>52</sup> Jamie McGeever, Reuters, *UBS seeks first-mover immunity in U.S. currency probe* (Feb. 7, 2014) (available at <http://www.reuters.com/article/2014/02/07/us-ubs-forex-idUSBREA161UN20140207>).

<sup>53</sup> David McLaughlin, Bloomberg, *U.S. Said to Give Banks December Deadline in FX Probe* (Nov. 13, 2014) (available at <http://www.bloomberg.com/news/articles/2014-11-13/u-s-said-to-give-banks-december-deadline-in-fx-probe>).

expected the DOJ to conclude its investigation “relatively soon,” and would move toward civil and criminal resolutions.

144. Since that time, the DOJ’s investigation has uncovered new avenues of potential manipulation, including reports that HSBC leaked confidential FX-related information to a major hedge fund.<sup>54</sup> By February 2015, the DOJ had reportedly grown more certain that they had evidence to support criminal charges of collusive conduct by Barclays, Citi, JPMorgan, and RBS in particular, and was insisting that those banks enter guilty pleas in order to settle the cases against them.<sup>55</sup> In March 2015, the DOJ was reported to be seeking **\$1 billion each** from the banks that it was investigating.<sup>56</sup> The DOJ has also confirmed that it is preparing cases against individual current and former employees of the banks.

145. On March 23, 2015, the Court in the class action brought by purchasers of FX spot and forward contracts entered a six-month stay of discovery in that case, in order to accommodate the DOJ’s continuing investigations. Case No. 13-cv-7789 (LGS), Dkt. No. 274 (S.D.N.Y. Mar. 23, 2015). On information and belief, the DOJ’s investigations will soon result

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<sup>54</sup> Katie Martin, Chiara Albanese and David Enrich, Wall St. J., *Justice Department Investigating Possible HSBC Leak to Hedge Fund* (Nov. 25, 2014) (available at <http://www.wsj.com/articles/justice-department-investigating-possible-hsbc-leak-to-hedge-fund-1416953090>).

<sup>55</sup> Davlin Barrett and Christopher Matthews, Wall St. J., *U.S. Seeks Guilty Pleas From 4 Banks in Currency Antitrust Probe* (Feb. 10, 2015) (available at <http://www.wsj.com/articles/u-s-seeks-guilty-pleas-from-4-banks-in-currency-antitrust-probe-1423616204>); Ben Protess and Jessica Silver-Greenberg, NY Times (Feb. 9, 2015) (available at [http://dealbook.nytimes.com/2015/02/09/u-s-is-seeking-felony-pleas-by-big-banks-in-foreign-currency-inquiry/?\\_r=0](http://dealbook.nytimes.com/2015/02/09/u-s-is-seeking-felony-pleas-by-big-banks-in-foreign-currency-inquiry/?_r=0)).

<sup>56</sup> Keri Geiger and Greg Farrell, Bloomberg, *U.S. Is Seeking Billions From Global Banks in Currency Manipulation Settlement* (Mar. 13, 2015) (available at <http://www.bloomberg.com/news/articles/2015-03-13/u-s-said-to-start-at-1b-a-bank-to-settle-currency-probe>).

in massive settlements and the release of damning evidence that further confirm that Defendants colluded to manipulate the FX market.

## 5. Other ongoing investigations

146. Other authorities across the globe are also actively investigating Defendants' manipulation of the FX market, including:

147. *The U.S. Federal Reserve* announced in November 2014 that it is investigating improper conduct in the FX markets, and is working closely with the DOJ and other authorities.<sup>57</sup>

148. *The U.S. Securities and Exchange Commission ("SEC")* was reported in March 2014 to have launched an investigation into whether the banks distorted prices for FX options and exchange-traded funds.<sup>58</sup>

149. *The New York Department of Financial Services ("DFS")* regulates banks licensed to do business in New York. The DFS is reportedly investigating about a dozen banks for their role in manipulating the FX market.<sup>59</sup> In addition to misconduct by individual traders in electronic chat rooms, the DFS is investigating whether the banks used algorithms on their electronic trading platforms to manipulate FX prices. The DFS initially focused its investigation

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<sup>57</sup> Doina Chaicu, Reuters, *U.S. Federal Reserve investigating bank conduct in forex markets* (Nov. 12, 2014) (available at <http://www.cnn.com/id/102176829>).

<sup>58</sup> Keri Geiger and Silla Brush, Bloomberg, *SEC Said to Probe Whether Forex Rigging Distorted Options* (Mar. 10, 2014) (available at <http://www.bloomberg.com/news/articles/2014-03-10/sec-said-to-probe-whether-forex-rigging-distorted-options>).

<sup>59</sup> Greg Farrell, Bloomberg, *Lawsky Said to Probe Barclays, Deutsche Bank FX Algorithm* (Dec. 10, 2014) (available at <http://www.bloomberg.com/news/articles/2014-12-10/ny-regulator-said-to-probe-deutsche-bank-barclays-fx-algorithms>).

on Defendants Barclays and Deutsche Bank, and has installed specialist advisory firms as monitors at both of those banks.<sup>60</sup>

150. In December 2014, the DFS expanded its probe by also serving subpoenas on Defendants BNP Paribas, Credit Suisse, and Goldman Sachs.<sup>61</sup> Those Defendants began to produce responsive information in late January, including transcripts of traders discussing the manipulation of algorithms. The DFS's investigation is ongoing, and it is reportedly weighing various fines and punishments against these Defendants, including by imposing restrictions on certain Barclays New York business lines, and the required termination of certain Barclays employees.<sup>62</sup>

151. *The Financial Stability Board ("FSB")* is an international body that monitors and makes recommendations about the global financial system. The FSB's stated mission is to "promote global financial stability by coordinating the development of regulatory, supervisory, and other financial sector policies and conducts outreach."<sup>63</sup>

152. On February 14, 2014, the FSB announced that it would undertake "a review of FX benchmarks and will analyse market practices in relation to their use and functioning of the

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<sup>60</sup> Karen Freifeld, Reuters, *NY monitor in Deutsche to probe possible forex rigging* (Feb. 9, 2015) (available at <http://www.reuters.com/article/2015/02/09/deutsche-monitor-forex-idUSL1N0VJ1Q220150209>).

<sup>61</sup> Karen Freifeld, Reuters, *NY financial regulator subpoenas banks in forex probe* (Feb. 10, 2015) (available at <http://www.reuters.com/article/2015/02/10/usa-banks-probes-idUSL4N0VK61V20150210>).

<sup>62</sup> Devin Barrett and Christopher Matthews, Dow Jones Business News, *U.S. Seeks Guilty Pleas from 4 Banks in Currency Antitrust Probe* (Feb. 10, 2015) (available at <http://www.nasdaq.com/article/us-seeks-guilty-pleas-from-4-banks-in-currency-antitrust-probe-20150210-01499>).

<sup>63</sup> FSB, *What We Do* (available at <http://www.financialstabilityboard.org/what-we-do/>).



FX market as relevant.”<sup>64</sup> The investigation was launched in response to “concerns [that] have been raised about the integrity of FX rate benchmarks,” and the “[c]onclusions and recommendations will be transmitted by the FSB to the Brisbane Summit.”

153. ***The U.K. Serious Fraud Office (“SFO”)*** is an independent U.K. government department responsible for investigating and prosecuting serious and complex fraud and corruption. On July 21, 2014, the SFO announced that it “has today opened a criminal investigation into allegations of fraudulent conduct in the foreign exchange market.”<sup>65</sup>

154. George Osborne, the U.K. Chancellor of the Treasury has pledged his full support for the SFO’s investigation, stating that “I understand that the SFO is in the early stages of a major investigation into forex trading. Given the importance of this work, the Treasury will provide the required funding for this investigation.”<sup>66</sup>

155. On December 19, 2014, the SFO made its first arrest in connection with its FX investigation. The suspect has since been identified as Paul Nash, a former FX trader for Defendant RBS.<sup>67</sup> Nash, who is the first individual to have been arrested in connection with the global RX investigations, was suspended by RBS in 2013.

156. ***The German Federal Financial Supervisory Authority (“BaFin”)*** is an independent German authority responsible for supervising banks and financial service providers.

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<sup>64</sup> *FSB to review foreign exchange benchmarks* (Feb. 14, 2014) (available at [http://www.financialstabilityboard.org/2014/02/pr\\_140213/](http://www.financialstabilityboard.org/2014/02/pr_140213/)).

<sup>65</sup> SFO, *Forex investigation* (Jul. 21, 2014) (available at <https://www.sfo.gov.uk/press-room/latest-press-releases/press-releases-2014/forex-investigation.aspx>).

<sup>66</sup> Andrew Trotman and James Titcomb, *The Telegraph*, *George Osborne: I will give SFO blank cheque to probe forex manipulation* (Nov. 14, 2014) (available at <http://www.telegraph.co.uk/finance/newsbysector/banksandfinance/11230298/George-Osborne-I-will-give-SFO-blank-cheque-to-probe-forex-manipulation.html>).

<sup>67</sup> Jamie McGeever and Kirstin Ridley, *Reuters*, *Arrested RBS forex trader named as Paul Nash* (Jan. 8, 2015) (available at <http://www.reuters.com/article/2015/01/08/us-forex-rbs-court-idUSKBN0KH1IZ20150108>).

Around January 2014, BaFin began an investigation into potential FX manipulation by traders at Defendant Deutsche Bank. BaFin reportedly put the case at the top of its priority list, and moved it into a “special investigation” category.<sup>68</sup>

157. By May 2014, BaFin had expanded its probe into “all German banks active in currency trading.”<sup>69</sup> BaFin’s investigators confirmed that they had found “disturbing evidence,” that traders had manipulated FX rates, including telephone transcripts and emails “that show traders were asking for higher or lower fixing prices, and counterparts that then dumped, for example €400 million to move markets.”

158. In November 2014, Raimund Roeseler, BaFin’s head of banking supervision, reported that BaFin had even found cases of possible criminal activity that were “anything but reassuring. These are possibly criminal acts that could happen because checks failed.”<sup>70</sup> Roeseler added that the investigation would take additional time because of the enormous size of the FX market.

159. *The Swiss Competition Commission (“Swiss WEKO”)* is an independent Swiss federal authority responsible for “combating harmful cartels, monitoring dominant companies for

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<sup>68</sup> Lianna Brinded, International Business Times, *FX Fixing Scandal: BaFin Pushes Deutsche Bank Probe to Top of List* (Jan. 20, 2014) (available at <http://www.ibtimes.co.uk/fx-fixing-scandal-bafin-pushes-deutsche-bank-probe-top-list-1432973>).

<sup>69</sup> Eyk Henning, Wall St. J., *Germany’s Banking Watchdog Widens Foreign Exchange Probe* (May 20, 2014) (available at <http://www.wsj.com/articles/SB10001424052702304198504579573700827118172>).

<sup>70</sup> Reuters, *BaFin says forex probe shows possible criminal acts* (Nov. 29, 2014) (available at <http://www.reuters.com/article/2014/11/29/fx-investigation-germany-idUSL6N0TJ0A820141129>).

signs of anti-competitive conduct, enforcing merger control legislation, and preventing the imposition of restraints of competition.”<sup>71</sup>

160. Around September 2013, the Swiss WEKO launched one of the first investigations into manipulation of the FX market. In March 2014, the Swiss WEKO provided additional details on its ongoing investigations, stating that it was focusing on a total of eight banks, including Defendants Barclays, Citi, Credit Suisse, JPMorgan, RBS, and UBS.<sup>72</sup> The Swiss WEKO added that “evidence exists that these banks colluded to manipulate exchange rates in foreign currency trades” and reached “anti-competitive agreements to manipulate price rates in foreign exchange trading.”

161. ***The European Commission (“EC”)*** is the European Union body responsible for proposing and enforcing the laws of the EU and managing the EU’s day-to-day business. In October 2013, EC Competition Commissioner Joaquin Almunia reported that he had recently learned of activities that “could mean violation of competition rules around the possible manipulation of types of exchange rates,” and that the EC had begun an investigation into that misconduct.<sup>73</sup>

162. In June 2014, Almunia confirmed that the investigation was still ongoing and in its preliminary stages. Almunia stated that “there is a lot of information and we are digging into

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<sup>71</sup> Competition Commission, Welcome to the Competition Commission (available at <http://www.weko.admin.ch/index.html?lang=en&>).

<sup>72</sup> Caroline Copley and Patrick Graham, Reuters, *Swiss, UK watchdogs step up scrutiny on forex trades* (Mar. 31, 2014) (available at <http://www.reuters.com/article/2014/03/31/us-swiss-forex-investigation-idUSBREA2U0EN20140331>); David Schafer, Financial Times, *Swiss and UK watchdogs step up Forex investigations* (Mar. 31, 2014) (available at <http://www.ft.com/cms/s/0/99be70f4-b8ae-11e3-a189-00144feabdc0.html#axzz3VMMdYe4x>).

<sup>73</sup> Aoife White and Gaspard Sebag, Bloomberg, *EU Regulators Start Inquiry Into Currency Rate-Manipulation* (Oct. 7, 2013) (available at <http://www.bloomberg.com/news/articles/2013-10-07/eu-starting-inquiries-into-currency-manipulation-almunia-says>).

the information and analyzing it and discussing it.”<sup>74</sup> Around October 2014, the EC reportedly expanded its probe by seeking FX traders’ communications through Facebook and other social media, in addition to their emails and electronic chat room logs.<sup>75</sup>

163. *The Monetary Authority of Singapore (“MAS”)* is Singapore’s central bank and financial regulatory authority. In October 2013, the MAS announced that it had “been in touch with foreign regulators on the issue of alleged manipulation in the WM/Reuters foreign exchange benchmark rates. We stand ready to assist in their investigations.”<sup>76</sup>

164. *The Australia Securities and Investment Commission (“ASIC”)* is an independent Australian government body that enforces financial services laws and regulations. In March 2014, ASIC announced that it was launching an investigation into manipulation of the FX market.<sup>77</sup> A spokesperson stated “[w]e are aware of the reports of international regulatory inquiries on potential misconduct in other jurisdictions in relation to the FX market” and that “[w]e will conduct our own inquiries in Australia.”

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<sup>74</sup> Huw Jones, Reuters, *EU’s Almunia says nothing new yet on forex, Swiss benchmark rate probes* (Jun. 5, 2014) (available at <http://www.reuters.com/article/2014/06/05/eu-almunia-idUSL6N0OM2PP20140605>).

<sup>75</sup> Aoife White and Gaspard Sebag, Bloomberg, *FX Traders’ Facebook Chats Said to be Sought in EU Probe* (Oct. 27, 2014) (available at <http://www.bloomberg.com/news/articles/2014-10-27/fx-traders-facebook-chats-said-to-be-sought-in-eu-probe>).

<sup>76</sup> Rachel Armstrong and Kevin Lim, Reuters, *Singapore ready to assist in global currency rigging probe* (Oct. 24, 2013) (available at <http://www.reuters.com/article/2013/10/24/markets-fx-rigging-singapore-idUSL3N0IE2XO20131024>).

<sup>77</sup> Georgia Wilkins, The Sydney Morning Herald, *ASIC launches investigation into foreign exchange benchmarks* (Mar. 21, 2014) (available at <http://www.smh.com.au/business/asic-launches-investigation-into-foreign-exchange-benchmarks-20140320-355wo.html>).

165. *The New Zealand Commerce Commission* is the government agency responsible for enforcing pro-competition legislation. In March 2014, the New Zealand Commerce Commission announced that it is also investigating manipulation of the FX market.<sup>78</sup>

C. **Defendants have Since Terminated, Suspended or Overseen the Departure of Key Employees, and Banned their Traders from Multi-Bank Chat Rooms**

166. Once the media and government regulators began to release information showing that Defendants had colluded to manipulate the FX market, Defendants began to “clear the decks” of their FX operations. As detailed below, each of these Defendants has overseen the departure of at least one of its key FX employees since late 2013. Collectively, the Defendants have terminated or suspended *at least 36* FX employees, and seen at least eight other long-time, high-ranking FX personnel leave to reasons such as to “pursue other interests.” Defendants have also since banned the use of multi-bank chat rooms by their FX personnel.

167. *BofA* has suspended or terminated at least one FX employee. In March 2014, BofA suspended Joseph Landes, its head of spot FX trading in Europe, the Middle East, and Africa.<sup>79</sup>

168. *Barclays* has suspended or terminated at least six foreign exchange employees.<sup>80</sup> In November 2013, Barclays suspended Chris Ashton, the global head of voice spot trading, and a member of the “Cartel” chat room. Barclays also suspended New York-based FX spot traders

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<sup>78</sup> The New Zealand Herald, *Commerce Commission launches forex probe* (Mar. 31, 2014) (available at [http://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objected=11229637](http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objected=11229637)).

<sup>79</sup> Jamie McGeever, Reuters, *Bank of America suspends senior FX trader in London* (Mar. 6, 2014) (available at <http://www.reuters.com/article/2014/03/06/us-bank-of-america-suspends-idUSBREA251MZ20140306>).

<sup>80</sup> Caroline Binham and Daniel Schafer, Financial Times, *Barclays suspends six foreign exchange traders* (Nov. 1, 2013) (available at <http://www.ft.com/intl/cms/s/0/c3675c9a-42f2-11e3-8350-00144feabdc0.html#axzz3WB4A422a>).

Russell Katz and Jerry Urwin, London-based FX trader Mark Clark, Tokyo-based FX trader Jack Murray, and at least one unknown Barclays FX employee.

169. **BNP Paribas** has suspended or terminated at least one FX employee.<sup>81</sup> In March 2014, BNP Paribas suspended Robert de Groot, its head of FX spot trading, and a member of the Bank of England's Chief Dealers' Sub Group.

170. **Citi** has suspended or terminated at least three FX employees.<sup>82</sup> Citi suspended Andrew Amantia, an FX trader in New York, and Anthony John, an FX trader in London. Citi also terminated its head of European spot trading, Rohan Ramchandani, who was also a member of the Bank of England's Chief Dealers' Sub Group. In addition, the overall head of Citigroup's FX operations, Anil Prasad, left the bank in March 2014 to "pursue other interests."<sup>83</sup>

171. **Credit Suisse** substantially scaled back its FX trading operations in May 2014 by offering "redundancy packages" to six employees in New York and London.<sup>84</sup> Those employees include Daniel Wise, the head of spot trading in London, Mark Astley, a director of FX strategy, Monika Dasani, a London-based FX sales person, and Martin Amann, a New York-based director of FX sales. In addition, in September 2013, Todd Sandoz, the head of global FX trading stepped down after more than 17 years at Credit Suisse.

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<sup>81</sup> Katie Martin and David Enrich, Wall St. J., *BNP Paribas and Bank of America Suspend Forex Traders* (Mar. 6, 2014) (available at <http://www.wsj.com/articles/SB10001424052702304554004579422854231268772>).

<sup>82</sup> Liam Vaughan and Gavin Finch, Bloomberg, *HSBC, Citigroup Said to Suspend Traders on Currency Probe* (Jan. 17, 2014) (available at <http://www.bloomberg.com/news/articles/2014-01-17/hsbc-says-it-suspended-two-london-foreign-exchange-traders-1->).

<sup>83</sup> Ambereen Choudhury, Bloomberg, *Citigroup Head of Currencies Prasad to Step Down in March* (Feb. 5, 2014) (available at <http://www.bloomberg.com/news/articles/2014-02-05/citigroup-head-of-currencies-anil-prasad-to-step-down-in-march>).

<sup>84</sup> Julia Verlaine, Bloomberg, *Credit Suisse Trims FX Team as Fixed-Income Unit Shrinks* (May 13, 2014) (available at <http://www.bloomberg.com/news/articles/2014-05-13/credit-suisse-trims-fx-team-as-fixed-income-unit-shrinks>).

172. **Deutsche Bank** has suspended or terminated at least five FX employees.<sup>85</sup>

Deutsche Bank terminated three FX traders in its New York office: Diego Moraiz, the head of the emerging markets FX trading desk; Christopher Fahy, an FX trading director; and Robert Wallden, an FX trading director. DOJ and FBI agents had previously questioned Mr. Wallden at his New York home about transcripts of an electronic chat where he boasted “about his ability to influence currency markets.”<sup>86</sup>

173. Deutsche Bank also fired Ezequiel Starobinsky, an FX trader based in Buenos Aires, Argentina. And Kai Lew, a director of institutional FX sales, was suspended following an internal investigation. In addition, Christina Binaghi, a New York-based managing director and head of Latin America FX trading, left the firm in March 2014.

174. **Goldman Sachs** oversaw the departure of three senior FX executives in 2014: Steven Cho, the New York-based global head of spot and forward FX trading for G10 currencies; Leland Kim, another partner in the FX trading business; and Mitesh Parikh, the European head of spot FX trading.<sup>87</sup>

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<sup>85</sup> Gertrude Chavez-Dreyfuss, Reuters, *Deutsche Bank fires Argentine trader in wake of FX probe* (Feb. 5, 2014) (available at <http://www.reuters.com/article/2014/02/05/us-forex-deutsche-argentina-idUSBREA1423620140205>).

<sup>86</sup> David Enrich, Katie Martin and Jenny Strasburg, Wall St. J., *FBI Tries New Tactic in Currency Probe* (Nov. 20, 2013) (available at <http://on.wsj.com/OIgEmq>).

<sup>87</sup> Michael J. Moore, Bloomberg, *Goldman Sachs Currency Traders Cho, Lim Said to Depart* (Feb. 5, 2014) (available at <http://www.bloomberg.com/news/articles/2014-02-05/goldman-sachs-currency-traders-cho-lim-said-to-depart>).



175. **HSBC** has suspended or terminated at least two FX employees.<sup>88</sup> In January 2014, HSBC suspended Serge Sarramenga, the head of its G-10 spot FX desk, and Edward Pinto, an FX trader based in London.

176. **JPMorgan** has suspended or terminated at least two FX employees.<sup>89</sup> JPMorgan suspended Richard Usher, its head of G-10 spot trading. Usher was a leader of the “Cartel” chat room and was a member of the Bank of England’s Chief Dealers’ Subgroup. JPMorgan also suspended FX trader Gordon Andrews, after allegedly finding evidence that he disclosed trade information to employees at other banks.

177. **Morgan Stanley** has overseen the departure of at least two high-ranking FX executives.<sup>90</sup> In March 2014, Steve Glynn, co-head of FX and emerging markets, left the bank. Glynn had been at Morgan Stanley for 14 years. And in August 2014, Stuart Sopp, the G10 FX head, resigned from his position after five years with Morgan Stanley.

178. **RBS** has placed at least six FX employees into a disciplinary process, three of whom have been suspended.<sup>91</sup> London-based FX traders Julian Munson, Paul Nash, and Ian Drysdale have been suspended. And in December 2014, Mr. Nash was arrested and criminally charged by authorities as part of the U.K. Serious Fraud Office’s FX manipulation investigation.

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<sup>88</sup> Liam Vaughan and Gavin Finch, Bloomberg, *HSBC, Citigroup Said to Suspend Traders on Currency Probe* (Jan. 17, 2014) (available at <http://www.bloomberg.com/news/articles/2014-01-17/hsbc-says-it-suspended-two-london-foreign-exchange-traders-1->).

<sup>89</sup> Gavin Finch and Suzi Ring, Bloomberg, *JPMorgan Currency Trader Said to Be Suspended for Actions at RBS* (Jan. 14, 2015) (available at <http://www.bloomberg.com/news/articles/2015-01-14/jpmorgan-currency-trader-said-to-be-suspended-for-actions-at-rbs>).

<sup>90</sup> Reuters, *Morgan Stanley names Falloon as head of Asia Pac fixed income* (Mar. 13, 2014) (available at <http://www.reuters.com/article/2014/03/13/morgan-stanley-falloon-idUSL3N0MA30V20140313>).

<sup>91</sup> Steve Slater and Jamie McGeever, Reuters, *Six RBS traders could be punished in forex probe* (Dec. 23, 2014) (available at <http://uk.reuters.com/article/2014/12/23/uk-rbs-forex-probe-idUKKBN0K116420141223>).



179. **UBS** has suspended or terminated at least seven FX employees.<sup>92</sup> UBS suspended Niall O’Riordan, its head of FX trading and a member of the Bank of England’s Chief Dealers’ Subgroup. UBS also suspended at least six other FX traders, including New York-based traders Onur Sert and Michael Velardi. In addition, former UBS senior FX trader Matt Gardiner was placed on leave by his current employer, Standard Chartered PLC, where he is the assistant chief FX dealer.

### **III. DEFENDANTS MANIPULATED PRICES FOR FX FUTURES AND OPTIONS ON FUTURES**

180. As the dominant dealers and horizontal competitors in the global FX market, Defendants were uniquely positioned to manipulate the FX market to their own benefit, and to the detriment of market participants. Defendants took full advantage of this opportunity by colluding to manipulate the market for FX futures and options on futures.

#### **A. Defendants Manipulated Futures Prices Around 10 a.m. Central Time**

181. As detailed above, the results of government investigations and admissions by Defendants’ own former employees confirm that Defendants actively colluded to manipulate FX spot prices and benchmark rates, including at and around the key 4 p.m. WM/Reuters Closing Rate fixing period. The court handling a related class action has found that this is a surplus of “direct evidence akin to the ‘recorded phone call in which two competitors agreed to fix prices at a certain level.’” *In re Foreign Exchange Benchmark Rates Antitrust Litig.*, No. 1:13-cv-07789-LGS, Dkt. No. 242, at 12 (S.D.N.Y. Jan. 28, 2015).

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<sup>92</sup> Emily Flitter and Jamie McGeever, Reuters, *UBS suspends U.S.-based forex trader in manipulation probe* (Mar. 28, 2014) (<http://www.reuters.com/article/2014/03/28/us-forex-ubs-investigation-idUSBREA2R15T20140328>).

182. As explained below, Defendants’ manipulation of FX spot prices in and around the WM/Reuters Closing Rate fixing window is further confirmed by economic analyses by Plaintiffs’ economists and *Bloomberg*.

183. As also explained below, prices for FX futures and options move in tandem with prices for FX spot transactions. By manipulating prices and key benchmarks for spot transactions, Defendants also manipulated the prices for FX futures and options. As major participants in the FX market, Defendants knew that their manipulation of FX spot prices would also cause—and in fact did cause—manipulation of prices of FX futures and options on futures, to the detriment of market participants, such as Plaintiffs.

**1. Economic analyses further confirm Defendants’ manipulation of the WM/Reuters Closing Rates**

184. Defendants’ manipulation of the WM/Reuters Closing Rates is further confirmed by preliminary studies conducted by Plaintiffs’ economists and *Bloomberg*.

185. As confirmed by Congressional testimony and academic publications, “screens” are statistical tools based on economic models that use data such as prices, bids, quotes, spreads, market shares, and volumes to identify the existence, causes, and scope of manipulation, collusion, or other illegal behavior. For instance, “screens” were part of an analysis that eventually led to the discovery of the LIBOR rate-setting scandal that is still roiling the banking industry. In the context of LIBOR, journalists and economists uncovered anomalous behavior in the benchmark as compared to movements in other publically available data points (data points that were independent of the banks’ purported individualized judgment).<sup>93</sup> It was also screens that led to the initial detection, in the summer of 2013, of FX collusion and manipulation, which

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<sup>93</sup> See generally Testimony of Rosa M. Abrantes-Metz on behalf of the Office of Enforcement Staff, Federal Energy Regulatory Commission (Sept. 22, 2014), [http://elibrary.ferc.gov/idmws/doc\\_info.asp?document\\_id=14274590](http://elibrary.ferc.gov/idmws/doc_info.asp?document_id=14274590).

has resulted in over \$4 billion in settlements by banks in the U.S., the U.K., and Switzerland in November 2014, as discussed above.<sup>94</sup>

186. The use of screens here confirm Defendants were manipulating the FX market around the WM/Reuters Closing Rate fixing window. And as discussed in Sections III.B and III.C below, the use of many of these same screens confirm Defendants were doing so at other, similarly key times of day as well.

187. In conducting these studies, the economists have used conservative assumptions and have utilized a number of screens, including regressions, and a statistical significance test, to strip out price movement that might otherwise be attributed to non-manipulative market behavior. The studies included six major currency pairs, over a multi-year period.

188. First, Plaintiffs' study involved a statistical regression analysis and compared the size of the market move at the closing to a standard predicated size of an expected market move. Where a market move at the closing was found to significantly exceed the predicted standard size move, that was evidence of anomalous behavior suggesting manipulation. Second, the economists tested for market price reversals following the closing. Where a pre-closing move reversed within a short period of time, that suggests market manipulation and not the normal movement of the market. Third, the economists also ranked the market move preceding the closing, and only considered pre-closing moves that ranked among the top market moves of the day as potentially anomalous.

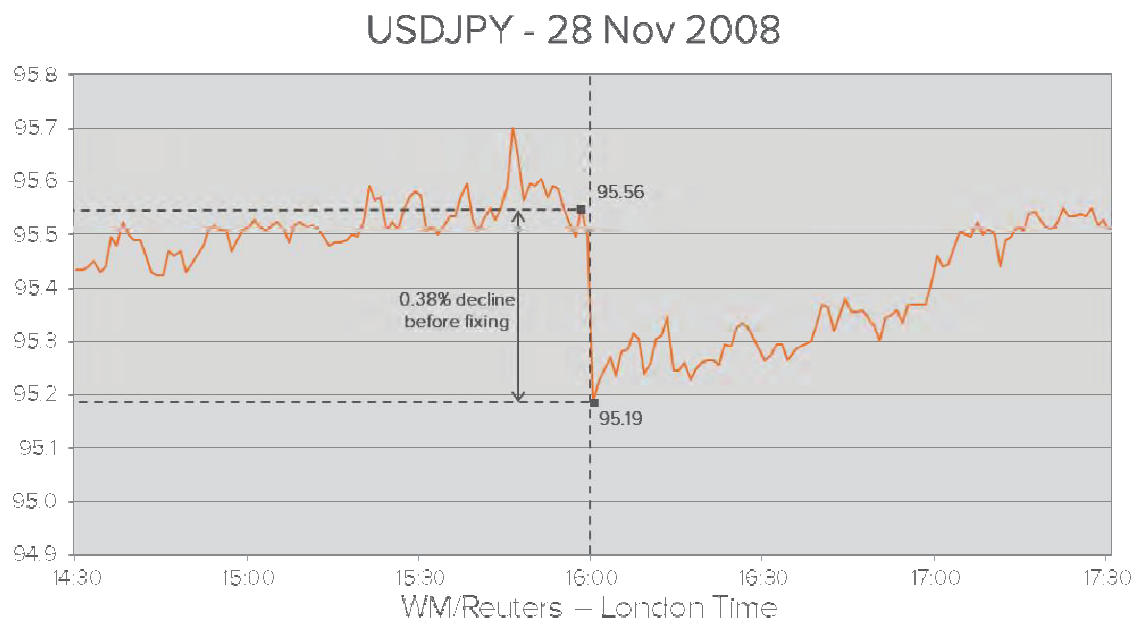
189. Based on that analysis, Plaintiff's economists found anomalous price movements on *thousands* of days. During the six-year period included in this particular study, for instance,

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<sup>94</sup> See Liam Vaughan and Gavin Finch, Bloomberg, *Currency Spikes at 4 P.M. in London Provide Rigging Clues* (Aug. 27, 2013) (available at [www.bloomberg.com/news/2013-08-27/currency-spikes-at-4-p-m-in-london-provide-rigging-clues.html](http://www.bloomberg.com/news/2013-08-27/currency-spikes-at-4-p-m-in-london-provide-rigging-clues.html)).

the EUR/USD WM/Reuters Closing Rate was manipulated, with a likely average quantum of manipulation between 0.12 and 0.16 percent. Similarly, Plaintiff's economist found that, within the Class Period, the AUD/USD WM/Reuters Closing Rate was manipulated, with a likely average quantum of manipulation between 0.20 and 0.28 percent. Again, similarly, Plaintiff's economist has found that, within the Class Period, the USD/JPY WM/Reuters Closing Rate was manipulated, with a likely average quantum of manipulation between 0.15 and 0.19 percent.

190. For example, the following chart depicts the sudden break in spot prices for USD/JPY on November 28, 2008, right at the time when the WM/Reuters Closing Rate was being measured.



191. To further identify, and depict, the presence of such statistically significant, abnormal spikes in prices around the WM/Reuters Closing Rate fixing window, the changes can be translated to a “linear forecast error” and then graphed. This essentially compares the prices in any one minute to the average price of the prior thirty minutes.<sup>95</sup> During periods of relative

<sup>95</sup> Technically, the “forecast errors” are squared differences.